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CHESSE STRATEGETICS ILLUSTRATED

WORKS ON CHESS BY FRANKLIN K. YOUNG

THE MINOR TACTICS OF CHESS

THE MAJOR TACTICS OF CHESS

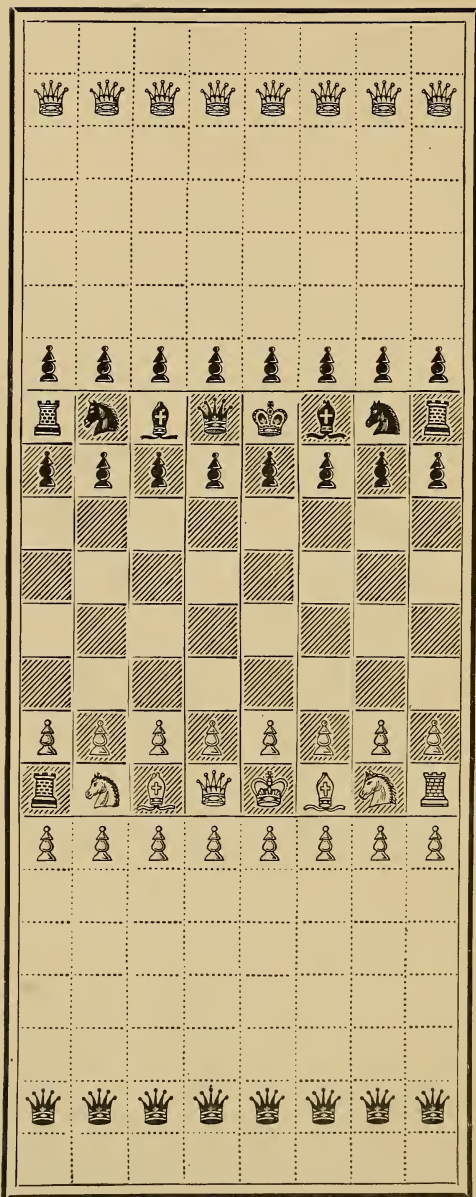
THE GRAND TACTICS OF CHESS

CHESS STRATEGETICS

SELF-TEACHING CHESSBOARDS



Black.



THE NORMAL STRATEGIC HORIZON.

White.

CHESS STRATEGETICS

ILLUSTRATED

MILITARY ART AND SCIENCE ADAPTED TO
THE CHESSBOARD

BY

FRANKLIN K. YOUNG

AUTHOR OF "THE MINOR TACTICS OF CHESS;" "THE MAJOR
TACTICS OF CHESS;" "THE GRAND TACTICS OF
CHESS;" "THE SELF-TEACHING
CHESSBOARD," ETC.

Positions and Examples from Morphy's Games



BOSTON
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1900

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TO
The Memory
OF
CHARLES PAUL MORPHY

The Incomparable Chess-player

THIS PRESENTATION OF THAT ART AND SCIENCE
OF WHICH HE IS THE

UNEQUALLED EXPONENT

WITH PROFOUNDEST REVERENCE

Most Humbly is Dedicated

BY
THE AUTHOR

PREFACE.

THIS book teaches how to apply, in actual play over the board, that theory of chess founded upon the practice of the greater Masters; the laws and principles of which for the first time are formulated and put into language in the preceding volumes of this series.

No amount of knowledge, however well classified and arranged, is of avail until those processes whereby it may be put to practical use are made clear.

This is the reason why the theorist, or mere man of learning, is the most useless of mankind; and why the artist, or man of action, is so infinitely his superior in every walk of life.

That is to say, science of itself is of little value, and as between the two, art is vastly to be preferred; for the reason that a man may know much, but from lack of understanding of the processes whereby only can his knowledge be put to practical use, he, in all directions, is outclassed by a man of little education, but who understands the secret for putting to practical use all the knowledge of which he is possessed.

The three preceding volumes of this series contain the laws and principles which appertain to the Science

of Chess ; in this fourth and final volume is illustrated those Minor, Major, and Grand Processes of Greater Logistics which appertain to the Art of Chessplay.

This book teaches how to combine the processes of the art of chessplay with the formulas of the science of chess, and discloses those two great secrets which govern the Science of Strategie, whether the contending pieces are made of wood and ivory or of flesh and blood.

BOSTON, 1900.

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INTRODUCTORY.

IN placing before the public this fourth and final volume of the "Chess Strategetics Series," the author completes a work — undertaken merely as a relief from more arduous labors — which has been accorded recognition in technical literature far exceeding his expectations; a recognition which commands his deepest and sincere appreciation.

The synthetic method of chessplay — which for the first time is formulated and put into language in these volumes — early received the indorsement of Emmanuel Lasker, who, in a personal letter to Mr. Edwin C. Howell, collaborator in "Minor Tactics," stated that the new method of chessplay "was replete with logic and common sense."

This distinguished stamp of approval, placed upon the new synthetic method by the Chess Champion of the World, was supplemented a few months later by recognition, high and flattering, in another sphere. The "London (Eng.) Spectator," in its issue of June 1, 1895, devoted a page and a half to an intelligent and complimentary review of the "Minor Tactics of Chess," and stated: —

"The book is clearly written, but an effort is required to master the theory — and it needs to be mastered entire — before the light dawns. The reviewer, a poor player,

played for many years with a friend from whom he usually received odds and a beating. After acquiring (by six months' study) the new theory, he has played a series of games with the same friend (to whom this theory was unknown) without taking odds, and has not only won the majority of the games, but made a much better fight in those which he lost than he had been able to make before becoming acquainted with the theory."

On this side of the Atlantic the reception accorded the new method was equally cordial, and that high authority, R. F. Foster, in his "Complete Hoyle" said: —

"Of all the standard works on the game, 'The Minor Tactics of Chess' will be found most useful to beginners."

The appearance of "The Grand Tactics of Chess," the second volume of the series to be published, "marks an epoch in the literature of the game; and is," said "The Green Bag," "a revelation of the possibilities of chess." "The Providence Journal" treated the volume editorially, *viz.*: —

"He (Mr. Young) is brief in his explanations, clear in his definitions, and with the aid of diagrams, exemplary in his instructions. His plan of treating the materials is systematic from beginning to end. He leads the reader up from general principles and laws by a logical course of procedure, and he actually shows how a good game of chess should be played; how, indeed, it always is played by a great player."

It was at this point in his chess writings that the author first came to believe that his work would be understood and appreciated in his own lifetime. This was a consummation hardly to be hoped for, — it is difficult to teach old dogs new tricks; the chess-players of the day were wedded to their books of analysis, and it was too much to expect that the new synthetic method would

find converts outside of a rising generation, whose mind was free from the effect of prior teachings and of established habit.

But the simple system of "logic and common-sense" found supporters, and particularly did it attract to itself those who are in the daily habit of using their intellects, — men who buy books and who study them, — the professional class. Lawyers, doctors, the clergy, and graduates of army and navy colleges eagerly perused the new argumentative treatises on a game which they all admire and practise, — treatises which went to the root of things, which gave the whys and wherefores, and fitted the reader to evolve for himself better analysis than he can buy ready-made.

But, more surprising still, the obvious merit of the new synthetic method carried by storm the very citadel of the established order of things Caïssic in America ; and that high conservator of things that are — "The American Chess Magazine" — in its issue for September, 1898, says : —

"For the student who desires to enter the broader channels of chess, the best books are by Franklin K. Young ; his ' Minor Tactics of Chess ' and his more elaborate ' Grand Tactics ' are the most important productions of modern chess literature."

Backed by such high indorsements as these, the growth of the new system of chessplay naturally was rapid and most satisfying to the author. But that highest authority whose approval he most desired still was silent. By his writings it was the object of the author to show that the mathematics of the science of war and the mathematics of the science of chess are identical, and that the high tactics of warfare and of

chessplay are the same; and most of all did the author desire public recognition of his labors in this regard from an admitted military authority.

It was not until the publication of "The Major Tactics of Chess" in December, 1898, that the accuracy of the author's treatment of chessic art and science was placed beyond dispute.

The "New York Clipper" pronounced the third volume a book which "deserves nothing but commendation."

The "New York Sun" said: "It is really the higher mathematics of chess,—the combination that, to a mind quick at geometrical evolution, will be a means of confounding the adversary; the insight into it a surprise and delight, and the outcome having the unexpectedness of a happy piece of wit."

On Dec. 23, 1899, that sphinx, for which the author so long had waited, opened its mouth, and with the great voice of military authority, "The Army and Navy Register" (Washington, D. C.), said:—

"This additional contribution to chess literature from the able pen of Mr. Young will be received with even more delight than were his former scientific treatises, as it is a more complete development of his unique system. It forms the second volume of the Chess Strategetics Series, and, as the author confesses, may not improperly be termed a book of chess tricks. In the words of the text, 'Major Tactics is that branch of the science of chess strategetics which treats of the evolutions appertaining to any given integer of chess force when acting either alone, or in co-operation with a kindred integer, against any adverse integer of chess force; the latter acting alone, or in combination with any of its kindred integers.' This definition is a little discouraging to the student, but he should take heart, and, *if he can handle simple equations, he will not*

find the book difficult. The secret of Major Tactics in chess is to attack an adverse piece at a *time* when it cannot move, at a *point* where it is defenceless, and with a *force* that is irresistible. *The book is to the student of chess what Clausewitz and Von Hohenlohe are to the soldier at arms.* It is not intended for the beginner any more than is a treatise on ballistics recommended for the recruit. *In it one finds the principles of grand strategy and logistics applied to chess in a unique and scientific way.* The treatment is so clear and masterful as to win for the author the gratitude of all devotees of the royal game. *Every move is given its place in the plan of attack and defence, and is discussed in the light of examples from the historic contests of the great generals of the game.* In print, paper, and general presentment the book leaves no room for adverse comment."

CHESSE STRATEGETICS ILLUSTRATED.

CHESS STRATEGETICS ILLUSTRATED.

TOPOGRAPHICAL HORIZON.

THE principles which underlie the science of war and those which underlie the science of chess are one and the same; those processes whereby these principles are applied in actual warfare and in actual chessplay are nothing more nor less than processes in daily and common use in the various branches of the mathematics.

The science of mathematics is founded upon the proposition that one and one make two; the science of war is founded upon the proposition that two men, all else being equal, can whip one man. The art of warfare consists in those processes whereby two men are made simultaneously to attack one man, and the art of chessplay consists in these processes whereby two kindred chesspieces are made simultaneously to attack a single adverse piece.

In the elaboration of these processes the individual properly may become a collection of individuals, as, for example, armies and *corps d'armée*, and whether posted on the battlefield or on the chessboard; but in either case the law remains the same, — a law promulgated by one whose authority few will dispute: —

“The fundamental law of war,” says Napoleon, “is this, — the greater force always overcomes the lesser.”

The reader will observe that the master of military science does not qualify his statement; he does not say that the greater force *usually* overcomes the lesser; nor that it *almost* always overcomes the lesser; he says "ALWAYS overcomes the lesser."

There are men who up to this moment have held a different opinion. The mind of average humanity is illogical; it does not think, — it merely receives impressions through the senses. Thus its conclusions necessarily are based upon results, — *i. e.*, upon things which can be seen, heard, and felt, — and hence it readily is deceived and imposed upon through the defects and limitations of the bodily organism. Consequently, many men are of the opinion that it is possible for the weak to overcome the powerful, for grapes to grow on thorns, for the tail to wag the dog, and who would be astounded to know that the race is to the SWIFT and the battle to the STRONG, the Scriptures to the contrary, notwithstanding.

Furthermore, there are men who even after reading the law as laid down by the illustrious Corsican will continue to hold to their different opinion. Of such, this is all that need be said: he who is not endowed with an understanding of mathematics sufficient to sense by mere instinct, as it were, the grand mechanical fact underlying Napoleon's dictum, should not waste his time in the perusal of these volumes; Nature has not equipped him for the study of strategetics, — whether the latter relate to war or to chess. In the terse sentences of Frederick the Great : —

"Nothing can serve to enlighten stupidity and stubbornness; a mule would not improve in his tactics, though he made twenty campaigns with Prince Eugene."

But those who approach this subject with the desire to learn, readily will detect the peculiar wording of the law. They will note that the great captain uses the term, "*force*," that he does not say "bodies of men," neither does he say "greater number of men;" and that, in short, he does not say anything whatsoever about men, either individually or collectively but he says — "FORCE."

Now it is essential that the student of this theory, once and for all, comprehend that this "force" which the great master of military science is talking about has no relation to inert masses of men, but is a pure mechanical power. In war, this force is the weight multiplied by the square of the velocity of flying projectiles from small arms and artillery, and of the bodily impact of charging men and horses, whereby hostile troops and material are put *hors du combat*; in chess it is the power inherent in kindred chessmen to eliminate adverse pieces from the surface of the chessboard.

Hence, the first corollary of the fundamental law of Strategetics obviously is: —

A mass of troops or of chessmen does not achieve victory merely because it numerically is superior to the opponent, — the mass that wins may be in the aggregate either larger or smaller than the enemy, all that is matter of indifference, — the winning is effected in each and every case by operating against a vital point a "*force*;" *i. e.*, a power to destroy greater than the power to defend which at the given time and place is operated by the enemy. Says Napoleon: —

"It is only the force brought into action which avails in battles and campaigns, — the rest does not count."

Of this force, as applied to the chesspieces, a most

erroneous idea commonly is held. The Queen, for instance, is termed the "strongest," or the "most powerful" of the chesspieces; the Rook, the "next strongest," and so on. As a matter of fact, the chesspieces are of equal strength: none is either more or less powerful than the other. The Pawn can capture — *i. e.*, destroy — any adverse chesspiece by eliminating the latter from the surface of the chessboard; so can the Rook, the Bishop, the Knight, and the King — *the Queen can do no more*. Hence, obviously, the force for destruction exerted by one piece is equal to that possessed by any other chesspiece.

The fact that the Queen can attack at eight different points at one and the same time, and that she can traverse the length of the chessboard in a single move, are in no sense manifestations of "force" (for she can capture and destroy at only *one* point in a single move, and any other of the pieces is able to do likewise), but of superiority in mobility; *i. e.*, in freedom of movement.

This superiority of the Queen over the other pieces in mobility is a tremendous advantage in special positions, and greatly enhances her value in the abstract; but this advantage does not take the form of "force," but of *extraordinary facilities for bringing force into action*. It is as if, of two equal forces, one, the Queen, by virtue of good roads, could reach the battlefield in an hour; while the other, the Pawn, *en route* through a broken country, might require two, three, four, five, or even more hours, to reach the scene of action.

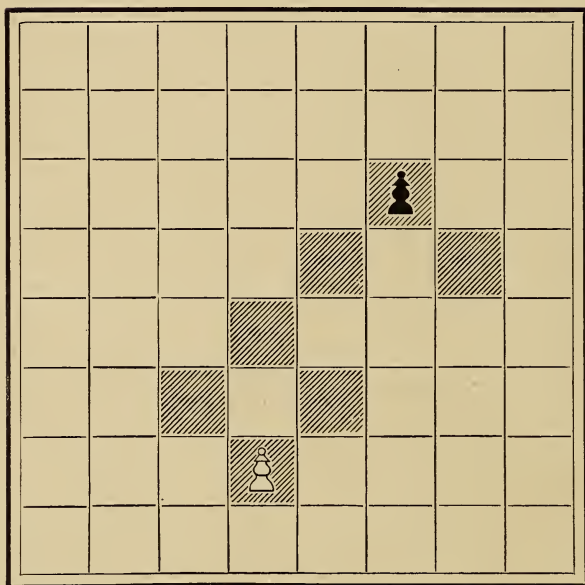
In this connection the student will observe that the fact of one piece not being able to move on a diagonal, while another cannot move on a vertical or a horizontal, and still yet another cannot move on an oblique, is typical merely of those topographical conditions which pre-

vent a body of troops from crossing an unfordable river, an impassable morass, an impenetrable forest, or an inaccessible range of heights ; and that the swifter march of one piece as compared with the slower march of another piece merely typifies favorable and unfavorable physical conditions of ground and of troops, which accelerate the one army and impede the other.

Thus, the student readily will see instead of the chessboard having but a single surface common to all the pieces, that in any given situation there necessarily are as many different surfaces as there are different pieces, and that while the material or visible chessboard is a simple matter of one big square, subdivided into sixty-four smaller squares, alternately colored light and dark, that the invisible or mathematical chessboard is a composite of all the topographical horizons which appertain to the chesspieces contained in the given situation. The student should thoroughly comprehend the appended diagrams illustrative of the topographical horizons of the various chesspieces, before proceeding further.

TOPOGRAPHICAL HORIZON OF THE PAWN.

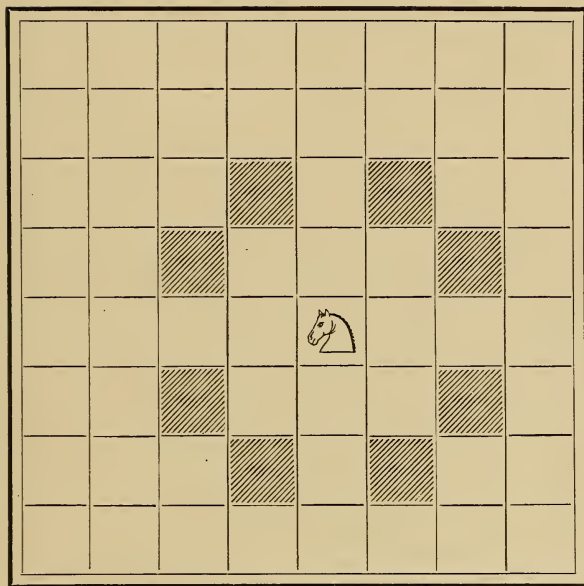
FIGURE 1.

Black.*White.*

NOTE. — This diagram shows the points possible for the Pawn to reach in a single move.

TOPOGRAPHICAL HORIZON OF THE KNIGHT.

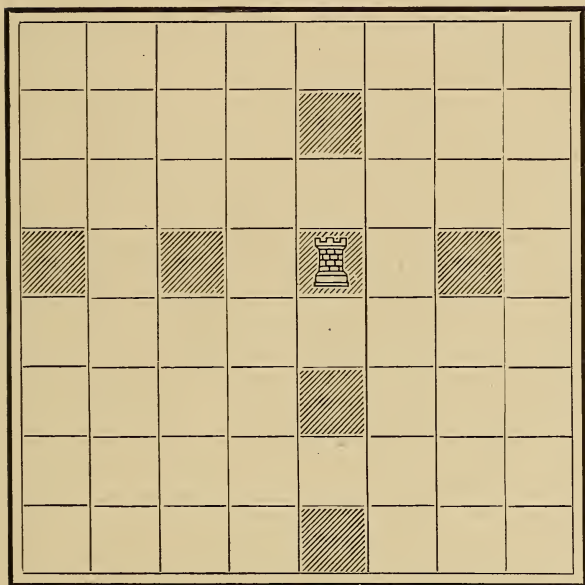
FIGURE 2.

Black.*White.*

NOTE. — This diagram shows the points possible for the Knight to reach in a single move.

TOPOGRAPHICAL HORIZON OF THE ROOK.

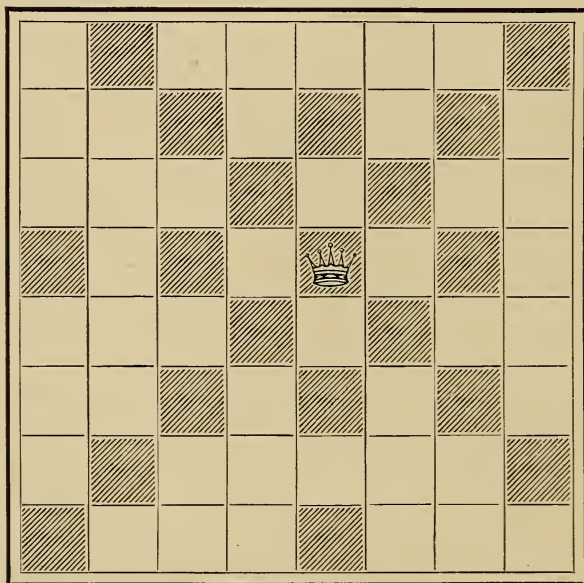
FIGURE 4.

Black.*White.*

NOTE. — This diagram shows the points possible for the Rook to reach in a single move.

TOPOGRAPHICAL HORIZON OF THE QUEEN.

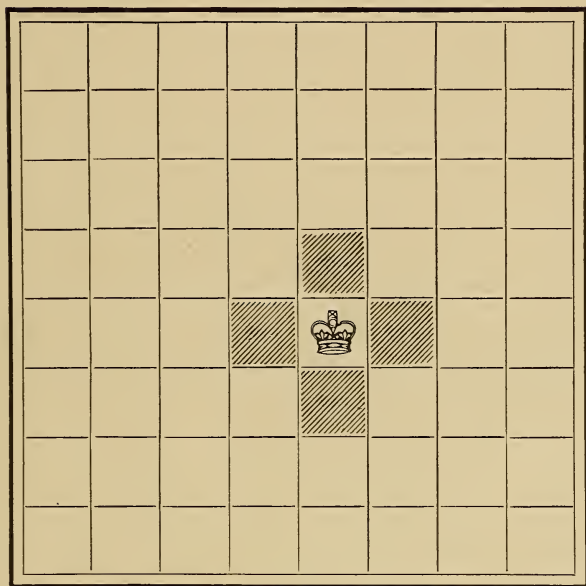
FIGURE 5.

Black.*White.*

NOTE. — This diagram shows the points possible for the Queen to reach in a single move.

TOPOGRAPHICAL HORIZON OF THE KING.

FIGURE 6.

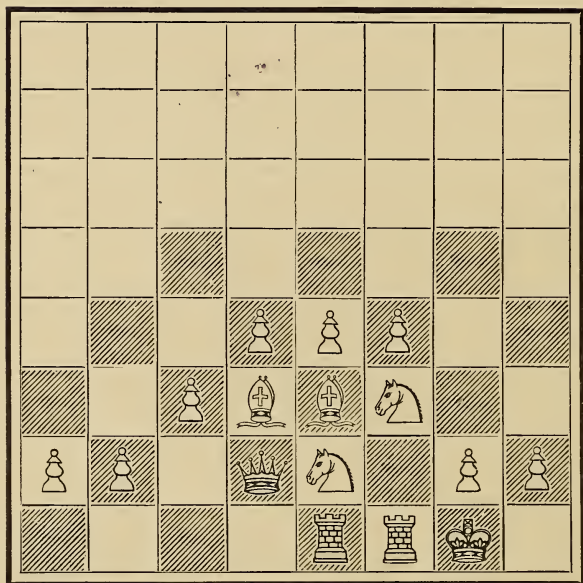
Black.*White.*

NOTE. — This diagram shows the points possible for the King to reach in a single move.

TOPOGRAPHICAL HORIZON COMPOSITE.

(a.)

FIGURE 7.

Black.*White.*

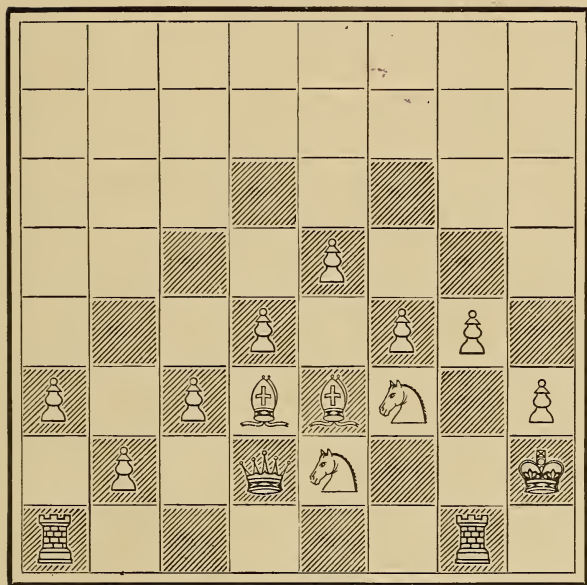
NOTE. — This diagram shows the points possible for the pieces contained in the Minor Right Oblique Doubly Aligned, to reach in a single move. Total, 39.

TOPOGRAPHICAL HORIZON COMPOSITE.

(b.)

FIGURE 8.

Black.



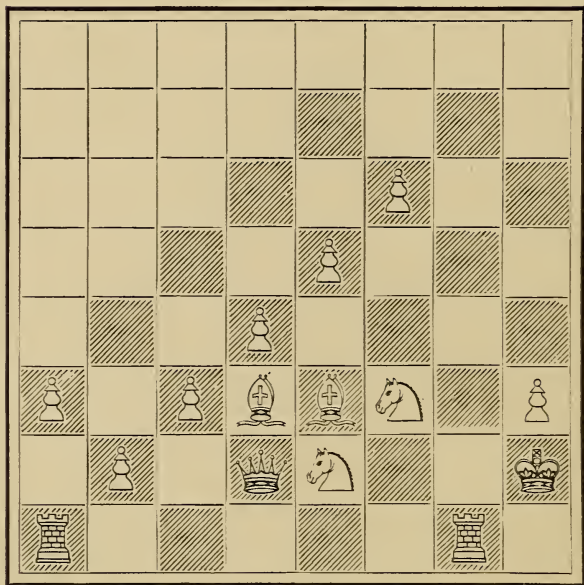
White.

NOTE.—This diagram shows the points possible for the pieces contained in the Major Right Oblique Echelon en Appui, with Minor Crochet, to reach in a single move. Total, 45.

TOPOGRAPHICAL HORIZON COMPOSITE.

(c.)

FIGURE 9.

Black.*White.*

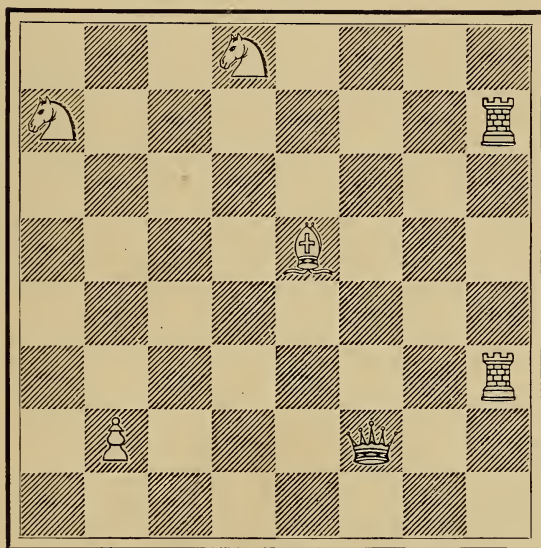
NOTE. — This diagram shows the points possible for the pieces contained in the Grand Right Oblique en Ap-pui, with Minor Crochet, to reach in a single move. Total, 49.

LINES OF COMMUNICATION.

Whenever the topographical horizons appertaining to two or more kindred pieces contained in the same topographical zone have one or more points in common, then, such points are termed *Points of Communication*, and those horizontals, verticals, diagonals, and obliques appertaining to the given kindred pieces which intersect at such points of communication are termed *Lines of Communication*.

LINES AND POINTS OF COMMUNICATION.

FIGURE 10.

Black.*White.*

NOTE. — The line of communication between the two white knights takes the form of a triangle composed

of two obliques, the vertex or point of communication being White's Q B 6.

The line of communication between the two White Rooks takes the form of a vertical (obviously, it equally well may be a horizontal), every point contained in which is a point of communication.

The line of communication between the Queen and the Rooks takes the form of a quadrilateral, and the points of communication are K R 2, K R 4, K B 7, and all the points contained in the third horizontal.

The line of communication between the White Queen and the White Bishop is formed of two diagonals, and the points of communication are K B 4, K 3, K R 2, Q 4, and K B 6.

The line of communication between the White Bishop and the White Pawn is formed of a diagonal, and the point of communication is Q B 3.

Obviously, then, whenever two or more kindred pieces are united with each other by lines of communication they always can support each other in a single move, and in all cases wherein such lines of communication, do not exist it is impossible for them to give each other such support.

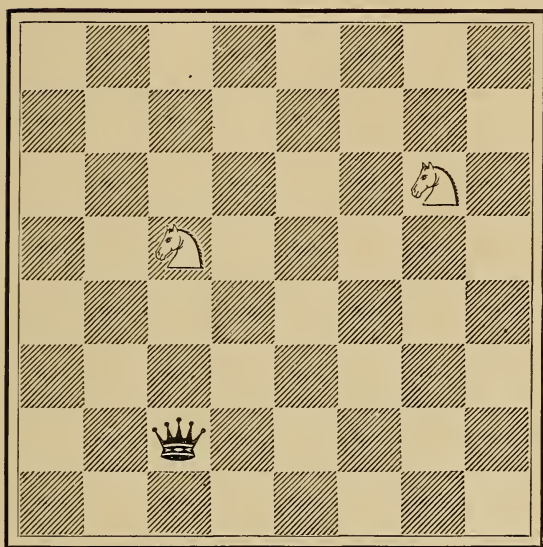
Hence, to the student, whether of mathematics, of war, or of chess, it is evident that the following is true and valid:

FIRST LAW OF THE ART OF CHESSPLAY.

Whenever two undefended kindred pieces having no line of communication are simultaneously attacked by an adverse force, then one of the given kindred pieces is lost.

NO LINE OF COMMUNICATION EXISTING.

FIGURE 11.

Black.*White.*

NOTE. — Both of the White Knights are isolated from each other and are simultaneously attacked by the Black Queen. No line of communication existing, one of the attacked pieces is lost.

It also will be readily apparent to the student that although a line of communication exists, but is nullified from any cause, the resultant condition is as though the line of communication did not exist, and again one of the two adverse pieces is lost by the operation of the foregoing law.

Hence, the truth of the following corollaries is self-evident: —

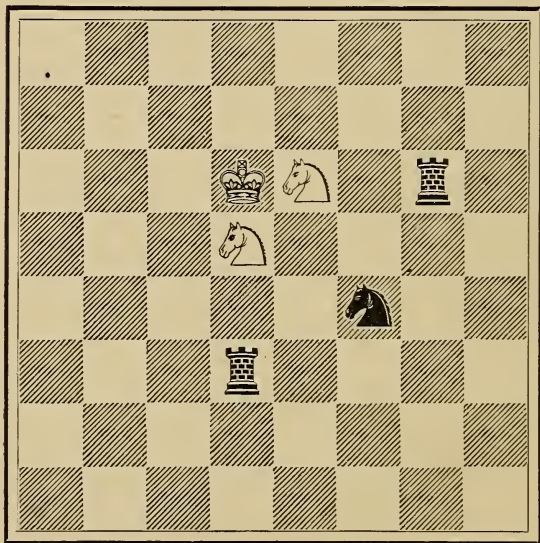
COROLLARY I. — If neither of the attacked pieces can move, then, although a line of communication exists, one of the attacked pieces is lost.

LINE OF COMMUNICATION NEUTRALIZED.

(Corollary I.)

FIGURE 12.

Black.



White.

NOTE. — A line of communication exists between the White Knights, but neither Knight can move.

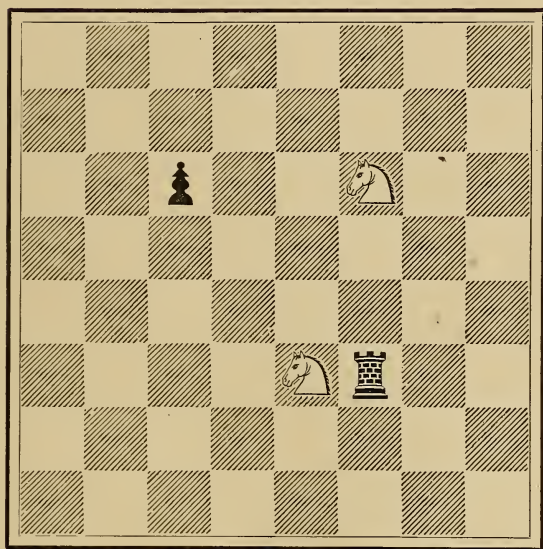
COROLLARY II. — If neither of the attacked pieces can occupy the point of communication, then, although a line of communication exists, one of the attacked pieces is lost.

LINE OF COMMUNICATION NEUTRALIZED.

(Corollary II.)

FIGURE 13.

Black.



White.

NOTE. — A line of communication exists between the two White Knights, but the point of communication is commanded by a Black Pawn.

PRIME STRATEGETIC FACTORS.

In contemplating the normal position, it is evident to the student of this theory that there are at the disposal both of himself and of his opponent sixteen chessic *corps d'armée*, all of which are equal in strength, that the positions of the contending Caïssan armies are identical, and that at the present moment neither has any advantage over the other.

But it is necessary that the student should observe much more than this. In addition to recognizing in pawn, knight, bishop, rook, queen, and king a complete army corps, having its full complement of infantry, cavalry, and artillery, and all in the highest condition of physical vigor, discipline, and equipment, and seemingly arrayed in a single mass, he must realize that in reality these corps are separated from each other by numerous impassable barriers, in violation of the Napoleonic dictum: "*Unity is the soul of strategy*;" and, furthermore, he must fix his attention upon what is one of the greatest considerations known to the science of Strategetics — whether applied in warfare or in chessplay — *i. e.*, the possibility of the arrival in the topographical zone of a body of chesspieces not numbered in the original *corps de bataille*.

In war, this most important factor for successful campaigning has its rise in the ability of the commander-in-chief to combine the movements of troops, which, though not a part of the same tactical formation, yet, through the harmonious working of the laws of military science,

nevertheless, *are manœuvring strategically, i. e.*, as a unit. In chess this factor is typified by the power of promotion possessed by the pawns; in consequence of which, as the student readily sees, the possibility always exists that one or even all of the kindred pawns, or of the adverse pawns, may reach the logistic horizon; in which case, a force enormously greater than the original armies would become precipitated into the theatre of conflict.

Consequently, it is imperative for the student thoroughly to realize that the hostile force on his front is but a part of the difficulties that beset him, and that in addition to the sixteen corps of the enemy that face him, eight other hostile corps of equal force are advancing against his strategic rear. To be sure, this situation has its compensation, otherwise the beautiful mathematical harmony of this incomparable game would be destroyed, and Leibnitz could not in truth and in rapt admiration have declared, "*Chess is an exact science.*"

For, like as the eight hostile corps are advancing across the adverse hypothetical zone, their movements depicted by the advance of the adverse pawns in the topographical zone, so likewise is to be seen an equal kindred force, marching across the kindred hypothetical zone to the attack of the strategic rear of the enemy.

Hence, as the student readily will perceive, the strategic plane is the principal geometric figure in all calculations which appertain to the practical application of this theory in actual play. Moreover, it is equally evident that there are three great objects, the attainment of which is the *motif* of every calculation, *viz.* : —

- I. To destroy the Determinate Adverse Force.
- II. To occupy the Kindred Logistic Horizon.
- III. To defend the Kindred Strategic Rear.

It also is easy to see that, for the attainment of these objects, all the powers contained in the Kindred Determinate Force must be constantly devoted, and that every move made must, either directly or indirectly, harmonize in itself the principles upon which those processes for simultaneously attaining these objects are based.

That is, at every move, the entire force of all the kindred pieces must be operated :

- I. To checkmate the adverse King.
- II. To queen a kindred Pawn.
- III. To prevent the queening of an adverse Pawn.

That force, operated by all the kindred pieces, collectively, for the purpose of checkmating the adverse King, is termed in this theory : —

THE COLUMN OF ATTACK.

That force, operated by all the kindred pieces, collectively, for the purpose of queening a kindred Pawn, is termed in this theory : —

THE COLUMN OF SUPPORT.

That force, operated by all the kindred pieces, collectively, for the purpose of preventing any adverse Pawn from queening, is termed in this theory : —

THE COLUMN OF MANŒUVRE.

In this connection, it is imperative that the student clearly understand that each of these three prime strategic factors is composed of all the kindred pieces ; and that, at every turn to move, the threefold duty devolves upon him of selecting that deployment, development, or manœuvre which in the given situation *harmonizes in a single move the requirements of these three great cardinal elements.*

Thus, it is obvious that the object of the Column of Attack is *to gain command of the Objective Plane*. Any process which effects this end is a strategic line of operations and is the completion of a complex line of manœuvre. Hence, it is easy to see that the column of attack ceases to exist whenever the net value of the Kindred Determinate Force, contained in the Topographical Zone, is less than the mobility of the Objective Plane.

The object of the Column of Support is *to occupy a point of junction on the kindred logistic horizon*. Any process which effects this end is a logistic line of operations and is the completion of a compound line of manœuvre. Hence, it is easy to see that the column of support ceases to exist whenever the last kindred Pawn is removed from the board.

The object of the Column of Manœuvre is *to maintain a point of impenetrability* upon the vertical occupied by each adverse pawn. Hence, it is obvious that the column of manœuvre ceases to exist upon the removal from the board of the last adverse Pawn.

In the performance of their various duties it well may happen that each of these prime strategic factors may meet with more or less resistance from the Adverse Determinate Force, and in all cases of conflict it is legitimate for either column to use its full energies *to destroy any or all of the opposing pieces*. Any process which effects this end is a tactical line of operations, provided no compensating benefit in time or in position or in material thereby accrues to the enemy.

The attention of the student is now requested to the appended diagram, which shows a strategic plane and the position of the various prime strategic factors.

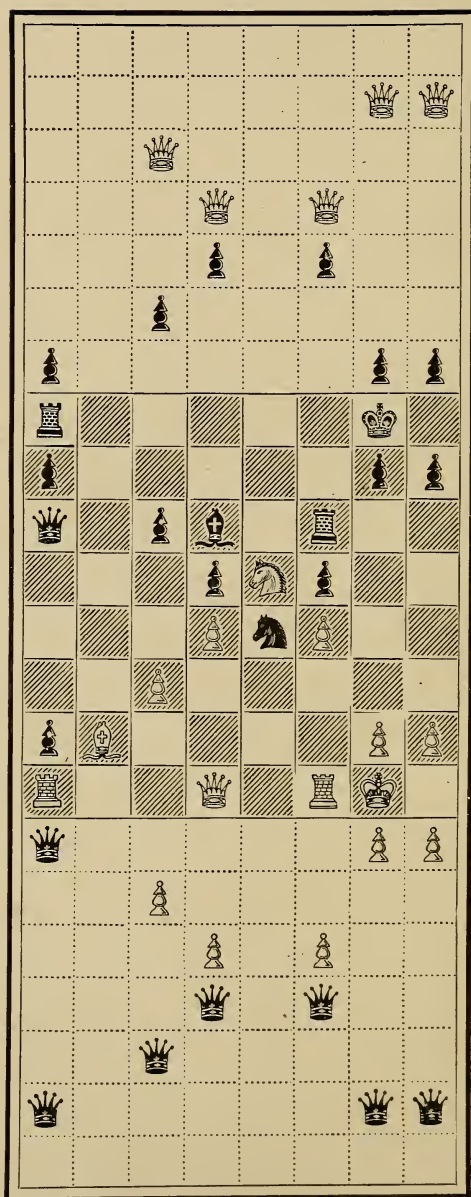
Black.

FIGURE 14.

PRIME STRATEGETIC FACTORS.

White.

NOTE. — In this diagram is depicted the Topographical Zone and the White Hypothetical and the Black Hypothetical Zones.

The White column of attack is represented by the white pieces contained in the Topographical Zone; the White column of support by the White Queens (promotable factors) contained in the Kindred Hypothetical Zone; the White column of manœuvre by the White Pawns contained in the Adverse Hypothetical Zone.

The Black column of attack is represented by the black pieces contained in the Topographical Zone; the Black column of support by the Black Queens (promotable factors) contained in the Kindred Hypothetical Zone; the Black column of manœuvre by the Black Pawns contained in the Adverse Hypothetical Zone.

The principle which governs the processes incident to the column of manœuvre is derived from the fact that *no Pawn can pass a piece situated on the same vertical*. Such point, therefore, is a point of impenetrability; and so long as it exists, it obviously is impossible for the given Pawn to pass it, and of course equally impossible for the given Pawn to reach the logistic horizon, hence, —

PRINCIPLE.

The strategic rear is defended against an adverse Pawn in all cases wherein a point of impenetrability exists on the vertical appertaining to the given adverse Pawn.

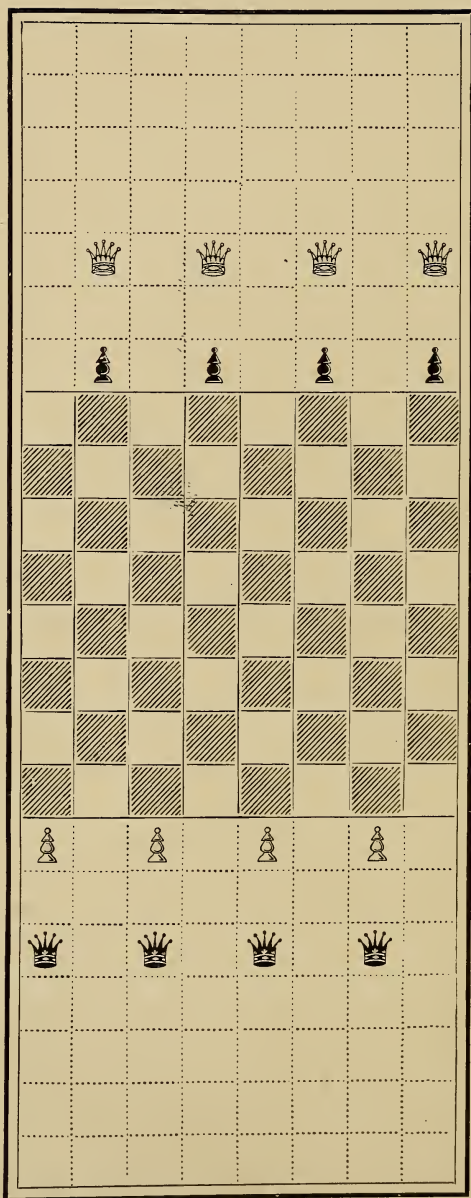
Black.

FIGURE 15.

POINTS OF IMPENETRABILITY.

White.

NOTE. — Obviously, it is impossible for any one of the promotable factors (*i. e.*, Queens), either with or without the move, to penetrate to its logistic horizon; for the reason that it cannot pass the point occupied by the opposing Pawn.

There are twenty-three basic situations, in which by means of the advantage in position a column of manœuvre may hold in check a numerically superior column of support.

This advantage in position is illustrated by the following diagrams: —

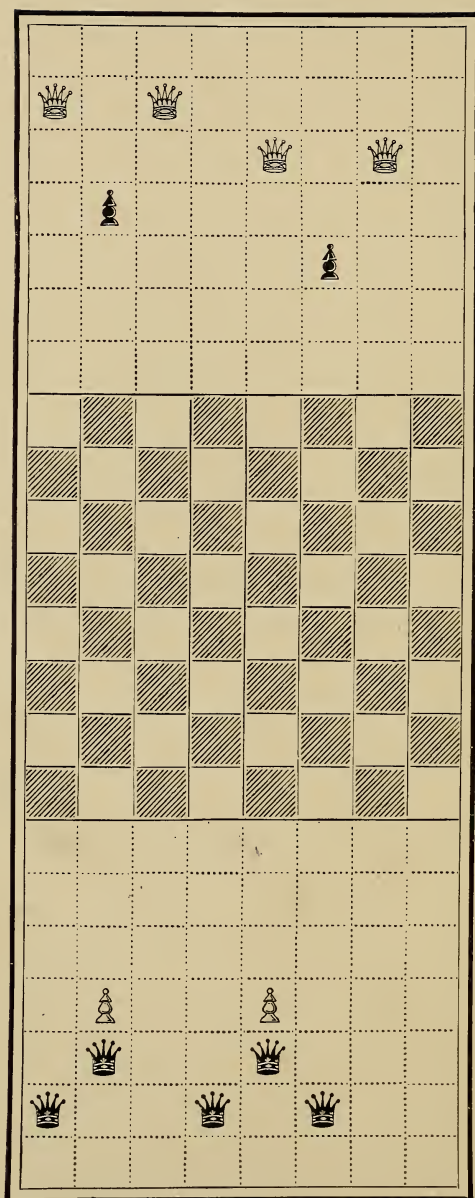
Black.

FIGURE 16.

COLUMN OF MANGEUVRE.

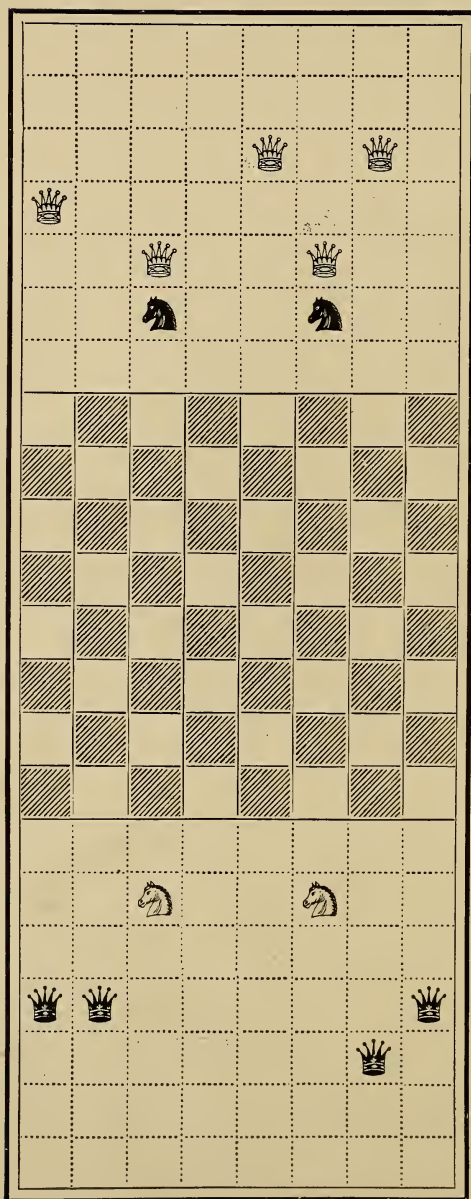
White.

NOTE. — These situations are based upon the fact that the numerically larger column of support is obliged to move, and that the only moves open to it are violations of the laws of major tactics.

Consequently, the inferior column of manœuvre is transformed into a column of support; then it advances to its logistic horizon and occupies a kindred point of junction, thus becoming a column of attack; then it pursues, overtakes, and annihilates the adverse column of support. All this is done, as the student readily sees, in conformity to Prop. VII. of “Major Tactics.”

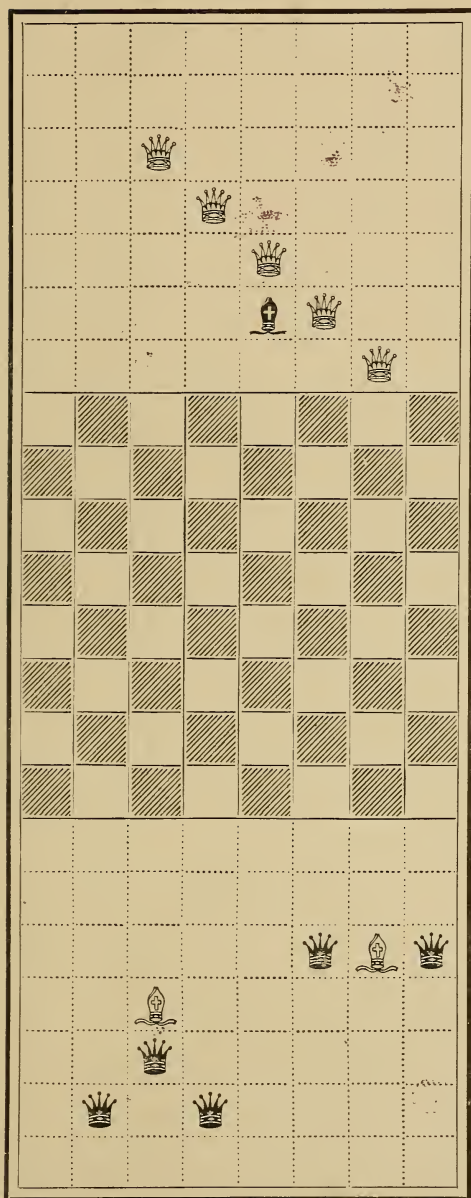
Black.

FIGURE 17.

*White.*

COLUMN OF MANŒUVRE.

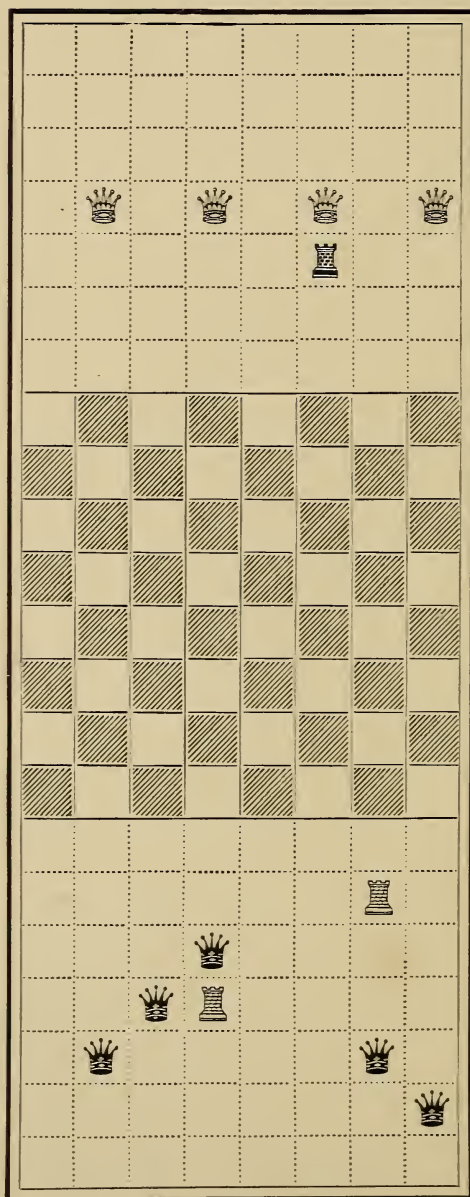
NOTE. — These situations are based upon the fact that either with or without the move the numerically inferior column of manœuvre is able to destroy in detail the adverse column of support, in accordance with Prop. VIII. of “Major Tactics.”

Black.

COLUMN OF MANOEUVRE.

NOTE. — Either with or without the move, the inferior column of manoeuvre can destroy in detail the adverse column of support, according to Prop. IX. of “Major Tactics.”

White.

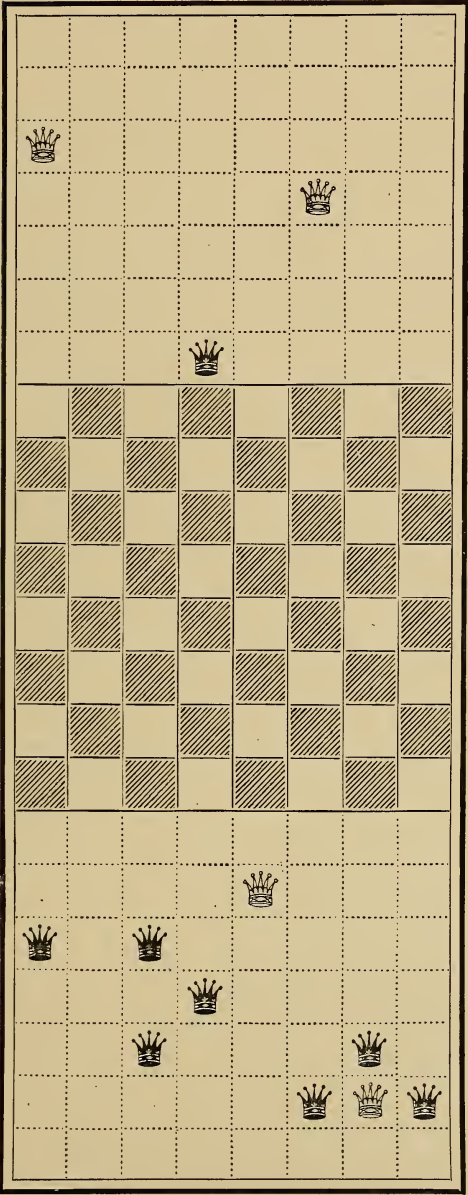
Black.

COLUMN OF MANOEUVRE.

White.

NOTE. — Either with or without the move, the numerically inferior column of manoeuvre can destroy in detail the adverse column of support, according to Prop. X. of “Major Tactics.”

Black.



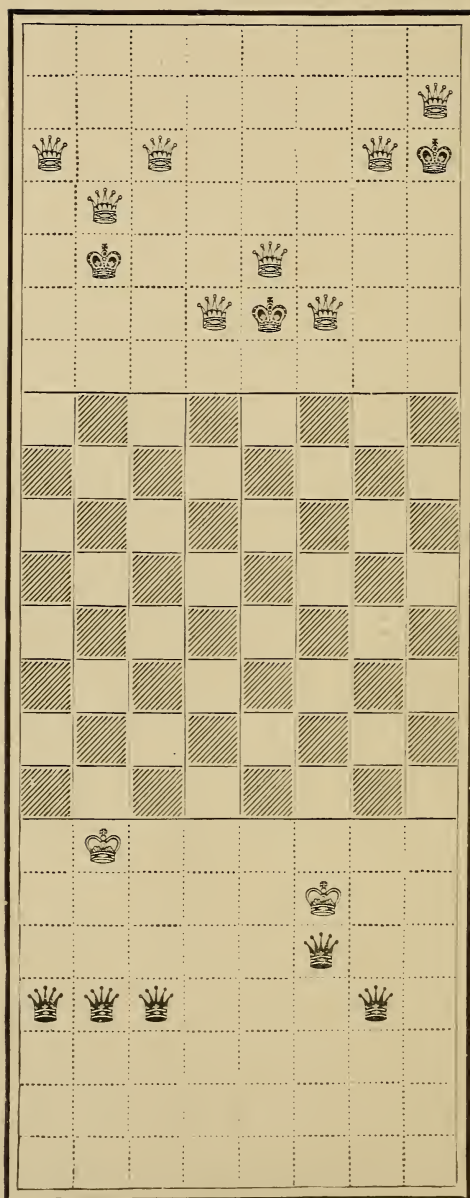
COLUMN OF MANOEUVRE.

NOTE. — Either with or without the move, the numerically inferior column of manoeuvre can destroy in detail the adverse column of support, according to Prop. X. of “Major Tactics.”

White.

Black.

FIGURE 21.

*White.*

COLUMN OF MANOEUVRE.

NOTE. — Either with or without the move, the numerically inferior column of manœuvre can destroy in detail the adverse column of support composed of two promotable factors, and without the move, it can destroy in detail the adverse column of support composed of three promotable factors; according to Prop. XI. of “Major Tactics.”

COLUMN OF SUPPORT.

The principle which governs the processes incident to the column of support is derived from the fact that, *in the absence of a point of impenetrability* on its vertical, it is *possible* for a Pawn to penetrate to the kindred logistic horizon. Hence: —

PRINCIPLE.

A Point of Junction is open to occupation whenever the number of Pawns advancing against the given logistic horizon exceeds the number of adverse points of impenetrability.

There are four basic positions which underlie all situations in which the column of support penetrates through the adverse column of manœuvre and gains possession of a point of junction on the logistic horizon, *viz.*: —

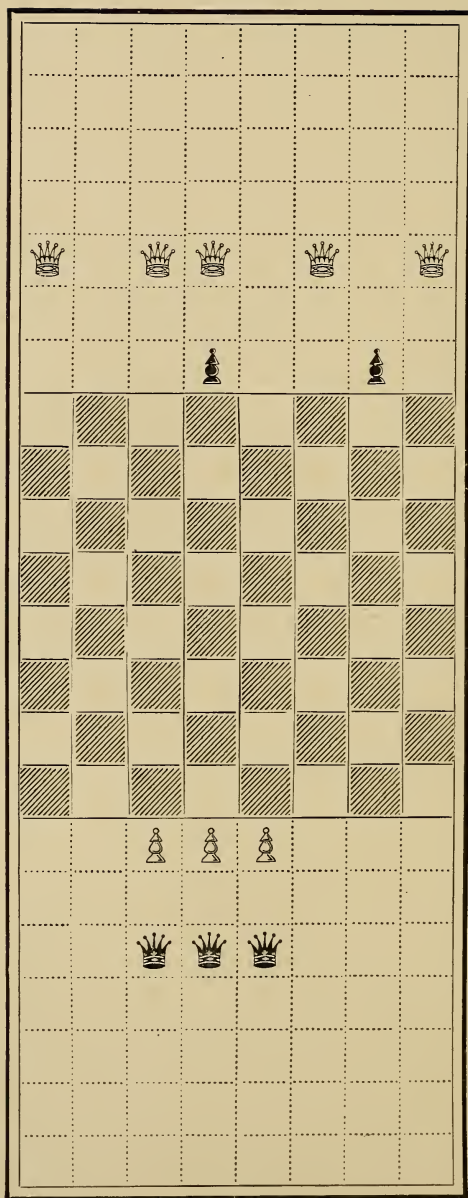
(a) A position in which there is no point of impenetrability.

(b) In which an adverse point of impenetrability is overlapped by two adjacent kindred supporting elements.

(c) In which the point of impenetrability is overlapped by two separated kindred supporting elements.

(d) In which three points of impenetrability are opposed by three supporting elements, the latter having the move.

These four basic positions are shown in the following diagram: —

Black.

COLUMN OF SUPPORT.

White.

FIGURE 22.

NOTE. — These basic situations are founded on the fact that all the points of impenetrability and of resistance being eliminated from the attitude of the given Pawn the latter will queen without capture, according to Props. V., VI., VIII., IX., X., and XI. (see “The Major Tactics of Chess,” pp. 110–121).

The student readily will see that the White Queen on the extreme left of the hypothetical zone has an unimpeded route of march to White’s Q R 8; that the White Queens on the centre of the same zone will easily remove the point of impenetrability on their front, by attacking it with one Queen supported by the other Queen, and that if the Black Pawn captures the attacking Queen, the supporting Queen, by capturing in turn the Black Pawn, or by merely advancing along its logistic radius, will remain with an unimpeded route of march to its logistic horizon.

Again, if in the example on the extreme right, either White Queen attacks the Black Pawn, the result is that one of the White Queens will remain with an unimpeded route of march to its logistic horizon, for whether the Black Pawn captures the attacking White Queen or advances or remains stationary, the point of impenetrability will be eliminated from the vertical of one, at least, of the White symbols of promotion, and it will be observed that either with or without the move, the White Queens may penetrate to their logistic horizon with equal certainty and facility.

In the case of the three Black Queens, the student will observe that it is imperative that they have the move; otherwise the white column of manœuvre will securely cover the white strategic rear by advancing the centre pawn one square towards the black symbols of promo-

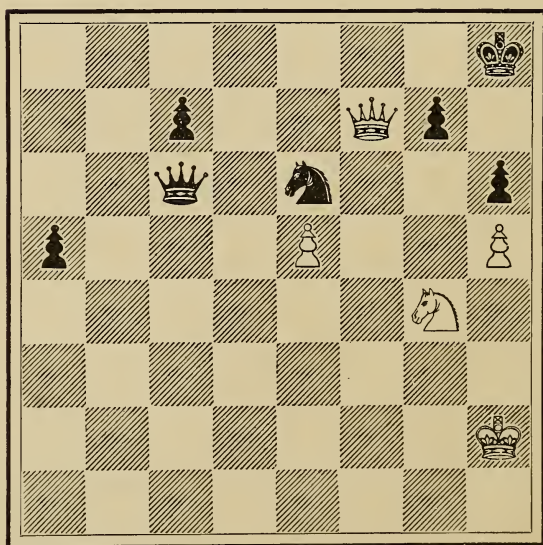
tion. This is the only move to maintain the integrity of the White defence, for if either of the other White Pawns advance, Black wins by attacking with one of the Black Queens the supporting White Pawn; whereupon one of the Black Queens will find itself in one of the three situations just described, and accordingly will be able to penetrate to its logistic horizon.

This same situation results if Black has the first move and he wins by advancing the centre black symbol of promotion one step. See "Grand Tactics," page 59.

COLUMN OF SUPPORT.

FIGURE 23.

ADOLPH ANDERSEN.



PAUL MORPHY.

This position occurred in the first game of the match between these masters.

THE PLAY.

MR. MORPHY.	HERR ANDERSEN.
50. Kt — B 6.	50. P × Kt.
51. Q × P (ck).	51. K — Kt 1.
52. Q — Kt 6 (ck).	52. K — B 1.
53. Q × P (ck).	53. K — K 1.
54. Q — Kt 6 (ck).	54. K — Q 2.
55. P — R 6.	55. Q — Q 4.
56. P — R 7.	56. Q × P (ck).
57. K — Kt 1.	57. Kt — Kt 4.
58. P — K R 8 (Queen).	58. Q × 2nd Q.
59. Q × Kt.	

COLUMN OF ATTACK.

The principle which governs the processes incident to the Column of Attack is derived from the fact that *the possession of that central diagonal which extends toward the objective plane* gives such an advantage in mobility that the consequent facility with which the kindred pieces may act in co-operation both for attack and for defence must ultimately lead to the checkmate of the adverse king. Hence :—

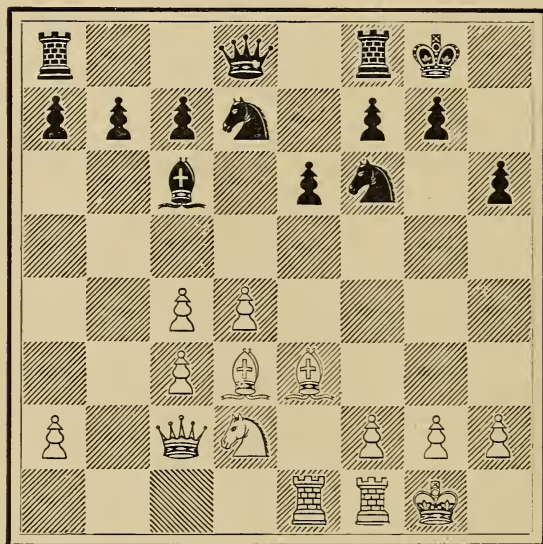
PRINCIPLE.

All else being equal, a properly constructed minor strategic front establishes an equality in position ; a properly constructed major strategic front establishes the superiority in position ; and a properly constructed grand strategic front establishes a winning advantage in position.

MINOR RIGHT OBLIQUE (*White*).
 MINOR LEFT OBLIQUE REFUSED (*Black*).

FIGURE 24.

ADOLPH ANDERSSSEN.



PAUL MORPHY.

This position occurred at move 14 in the fifth game of the Morphy-Anderssen match.

The student will observe that the White pieces are posted in strict accord with this theory of chessplay, and that collectively they constitute the formation termed in "Minor Tactics," p. 149, the OPB2C.

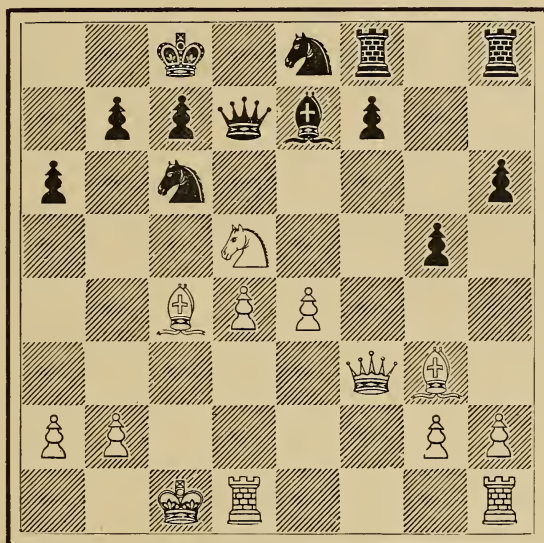
If the student will study carefully these fourteen opening moves and will compare them with the moves

given by the so-called "analytical authorities," he readily will see that Morphy made no pretence of conforming to their dicta, but merely played to establish the best available primary base, on a strategic front directed by the right, and so manœuvring as to prevent Black advancing his K P to K 4.

MINOR LEFT OBLIQUE ALIGNED (*White*).

FIGURE 25.

M. BORNEMANN.



PAUL MORPHY.

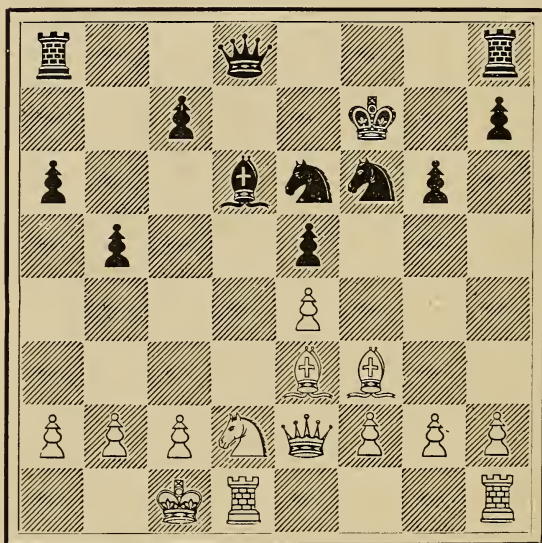
This position occurred on the 18th move at Table No. 3 in the great blindfold match played at the Café de la Régence, Paris, September, 1858.

The student will observe that the Black K is castled on the Queen's side, and that the White position is depicted in "Grand Tactics," Formula No. 17, page 136.

MINOR LEFT OBLIQUE (*White*).

FIGURE 26.

HERR HARRWITZ.



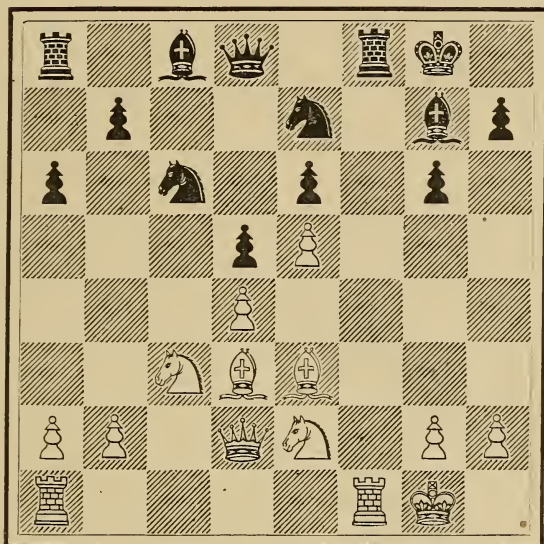
PAUL MORPHY.

This position occurred in the eighth game of the match between these masters.

MAJOR RIGHT OBLIQUE (*White*).

FIGURE 27.

ADOLPH ANDERSSEN.



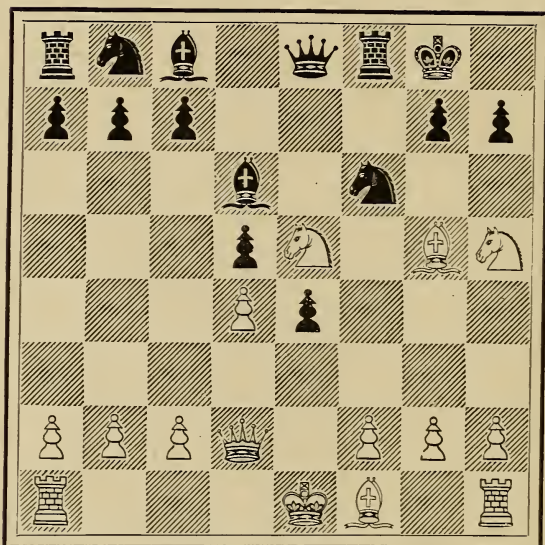
PAUL MORPHY.

This position occurred in the eleventh game of the match between these masters.

MAJOR RIGHT OBLIQUE (*Black*).

FIGURE 28.

PAUL MORPHY.



H. E. BIRD.

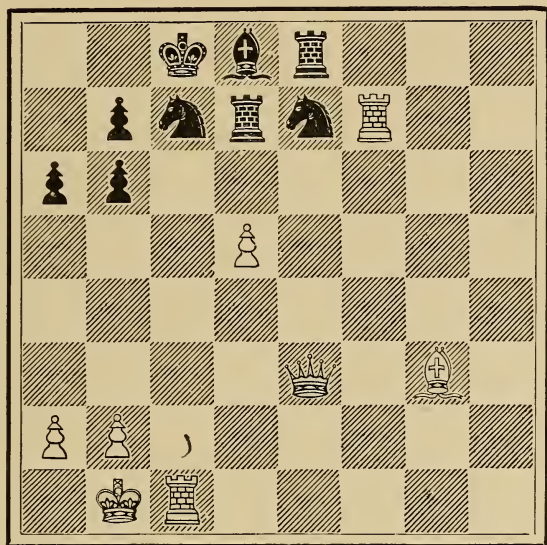
This position occurred at the 10th move in the celebrated Philidor's Defence between these masters.

The student will observe that Black has wrested from White the advantage of the initial move of the game, and has established a formation which properly should belong to the first player.

MAJOR LEFT OBLIQUE (*White*).
(Objective Plane, Left.)

FIGURE 29.

M. BORNEMANN.



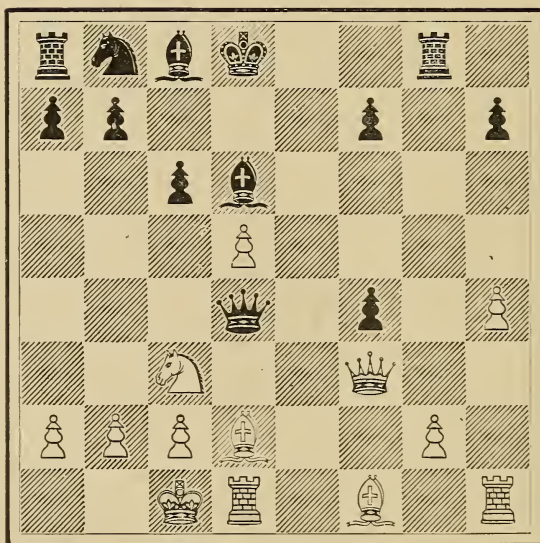
PAUL MORPHY.

This situation occurred on the 29th move at Table No. 3 in the great blindfold exhibition at Paris, 1858.

MAJOR LEFT OBLIQUE (White).
(Objective Plane, Centre.)

FIGURE 30.

PAUL MORPHY.



ADOLPH ANDERSEN.

This position occurred at the 13th move in the third and last game won from Morphy by the great German master.

THE PLAY.

HERR ANDERSSSEN.

MR. MORPHY.

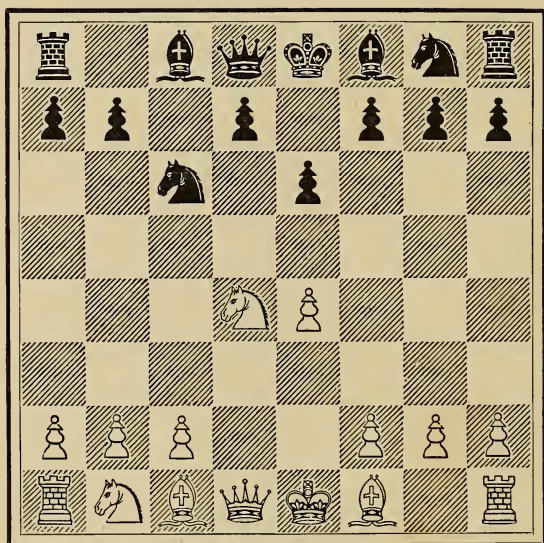
- | | |
|---------------------|-----------------|
| 14. Q — K 4. | 13. B — K Kt 5. |
| 15. Kt × Q. | 14. Q × Q. |
| 16. Kt × K B. | 15. B × R. |
| 17. B × P. | 16. B — R 4. |
| 18. Kt × Kt P (ck). | 17. P × P. |
| 19. B — Q Kt 5. | 18. K — K 2. |
| 20. R — K 1 (ck). | 19. R × P. |
| 21. R — K 8. | 20. K — B 3. |
| 22. Kt — Q 6. | 21. B — Kt 3. |

White won.

MAJOR LEFT OBLIQUE (*White*).
 (When Black Q P cannot occupy Q 3.)

FIGURE 31.

PAUL MORPHY.



ADOLPH ANDERSSSEN.

This situation occurred in the ninth game of the match between these masters.

THE PLAY.

MR. MORPHY.

5. Kt — Kt 5.
6. B — K B 4.
7. B — K 3.
8. Q Kt — B 3.
9. Kt — Q 5.
10. K Kt — B 7 (ck).
11. Q — B 3 (ck).
12. B — B 4.
13. Kt × Kt (dis ck).
14. B × P (ck).
15. Q — K R 5 (ck).
16. P × P.
17. K — K 2.

HERR ANDERSSSEN.

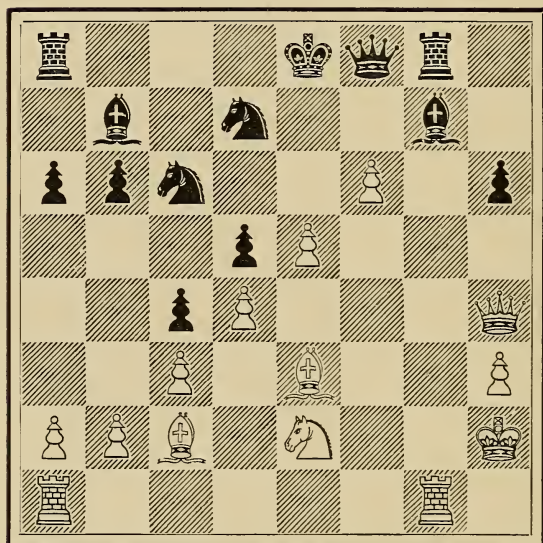
5. P — Q 3.
6. P — K 4.
7. P — B 4.
8. P — B 5.
9. P × B.
10. K — B 2.
11. Kt — B 3.
12. Kt — Q 5.
13. P — Q 4.
14. K — Kt 3.
15. K × Kt.
16. Kt × P (ck).

White won.

GRAND RIGHT OBLIQUE EN APPUI (*White*).
 MAJOR LEFT OBLIQUE REFUSED (*Black*).

FIGURE 32.

JUDGE A. B. MEEK.



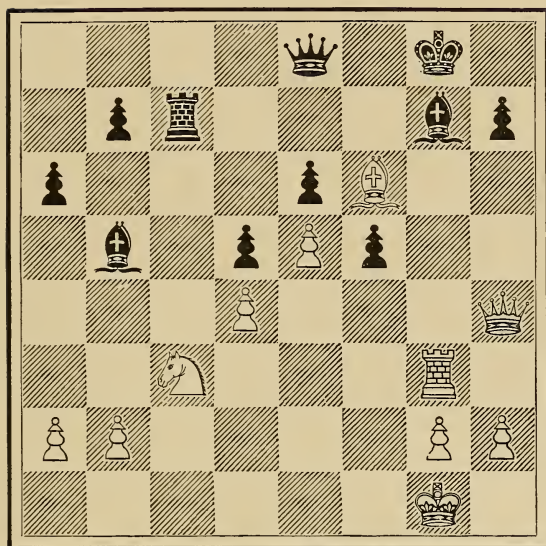
PAUL MORPHY.

This position occurred on the 24th move of a Fianchetto Defence. It shows the Strategic Objective occupied by a pawn.

GRAND RIGHT OBLIQUE (*White*).

FIGURE 33.

ADOLPH ANDERSSSEN.



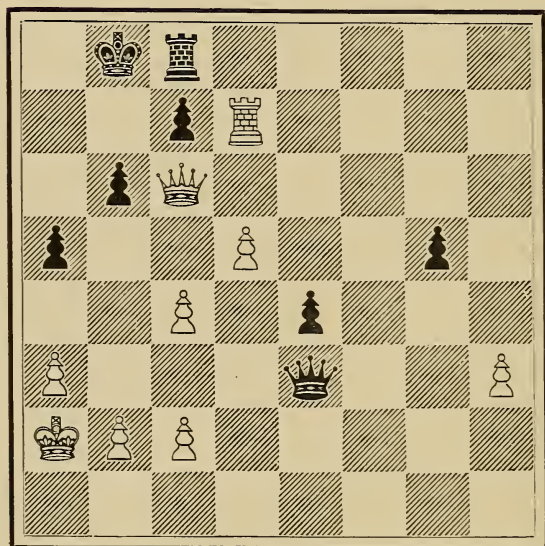
PAUL MORPHY.

This position occurred in the eleventh game of the match between these masters. It shows the Strategic Objective occupied by a piece.

GRAND LEFT OBLIQUE EN APPUI WITH MINOR CROCHET
(*White*).

FIGURE 34.

S. S. BODEN.



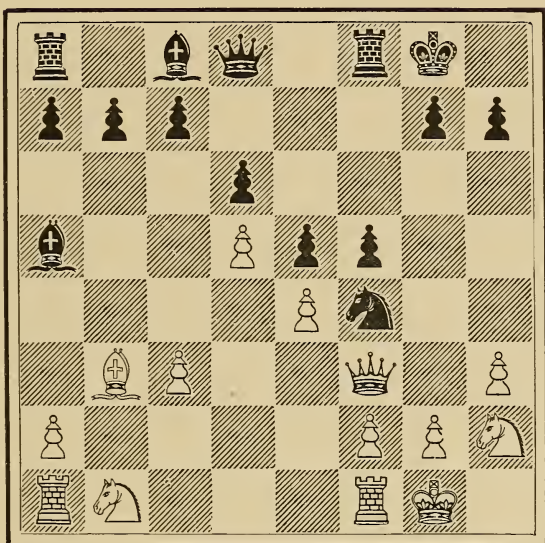
PAUL MORPHY.

This position occurred on the 39th move of a Two Knights Defence.

MINOR RIGHT OBLIQUE REFUSED AND ALIGNED (*Black*).

FIGURE 35.

PAUL MORPHY.



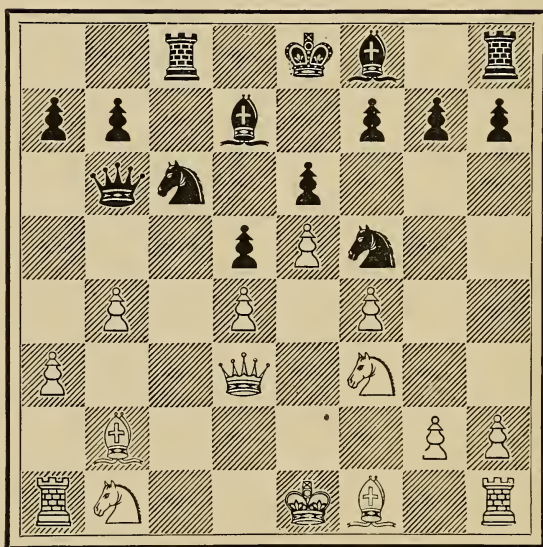
MONGREDIEN.

This position occurred at the 14th move of the seventh game in the match between these masters.

MINOR LEFT OBLIQUE REFUSED (*Black*).

FIGURE 36.

PAUL MORPHY.



JUDGE McCONNELL.

This situation occurred at the 11th move of a French Defence.

Black's position is the model of this form of defence against the Major Right Oblique En Potence.

THE PLAY.

JUDGE McCONNELL.

MR. MORPHY.

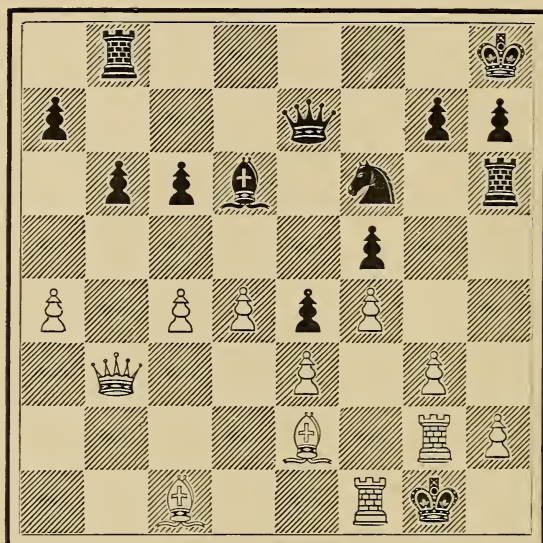
- | | |
|-------------------|------------------------|
| 12. P $\times$ B. | 11. B $\times$ P (ck). |
| 13. Q — Q 2. | 12. Kt $\times$ Kt P. |
| 14. Q — Q 1. | 13. R — B 7. |
| | 14. Kt — K 6. |

Black won.

MINOR LEFT OBLIQUE REFUSED AND ALIGNED (*White*).

FIGURE 37.

PAUL MORPHY.



ADOLPH ANDERSSSEN.

This position occurred in the tenth game of the match between these masters. It shows the defence of the K Kt at K B 3 by K B-K 2 against the Fianchetto of the adverse Q B.

THE PLAY.

HERR ANDERSSSEN.

MR. MORPHY.

24. B — Q Kt 2.

24. Q — K B 2.

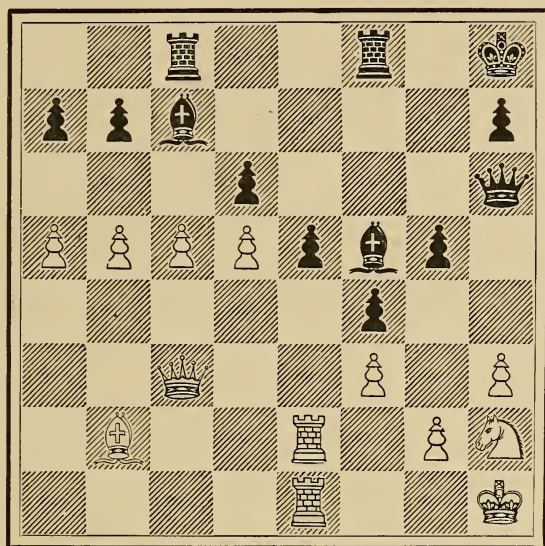
25. Q — B 2

25. B — K 2.

MAJOR RIGHT OBLIQUE REFUSED EN POTENCE (*Black*).

FIGURE 38.

PAUL MORPHY.



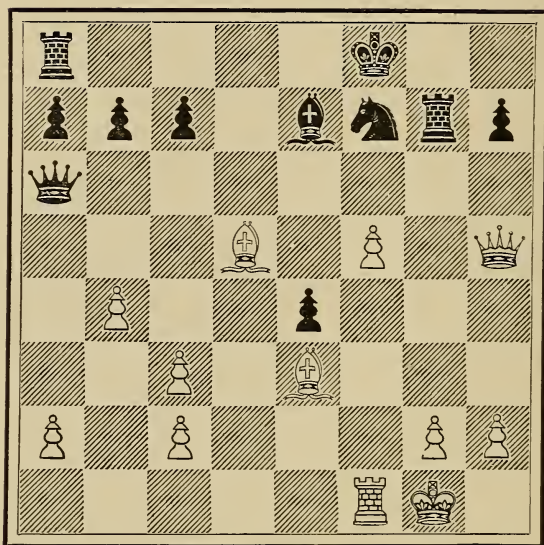
JACOB LÖWENTHAL.

This position occurred at the 40th move of the ninth game in the match between these players.

MAJOR CROCHET (*White*).

FIGURE 39.

MR. BARNES.



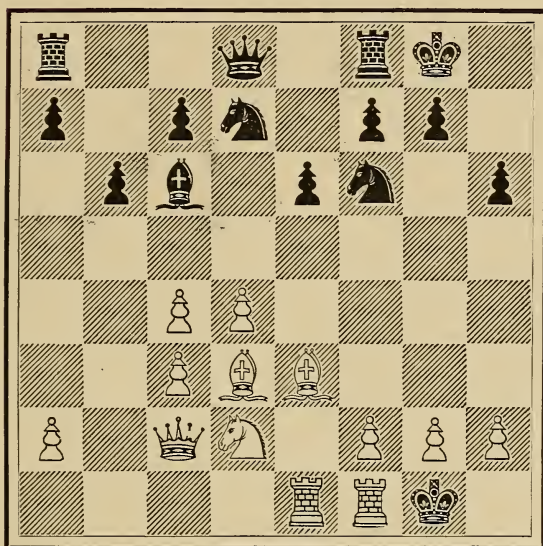
PAUL MORPHY.

This position occurred at the 24th move in a King's Bishop's opening. White won by P-Q Kt 5.

THE ECHELON (*White*).

FIGURE 40.

ADOLPH ANDERSSSEN.



PAUL MORPHY.

This situation occurred in the fifth game of the match between these masters. It shows the construction of the Echelon, the En Appui, and the En Potence in the Right Oblique by White.

THE PLAY.

MR. MORPHY.

- 15. P — K R 3.
- 16. K — R 2.
- 17. R — K Kt 1.
- 18. P — K Kt 4.
- 19. P — K B 4, etc.

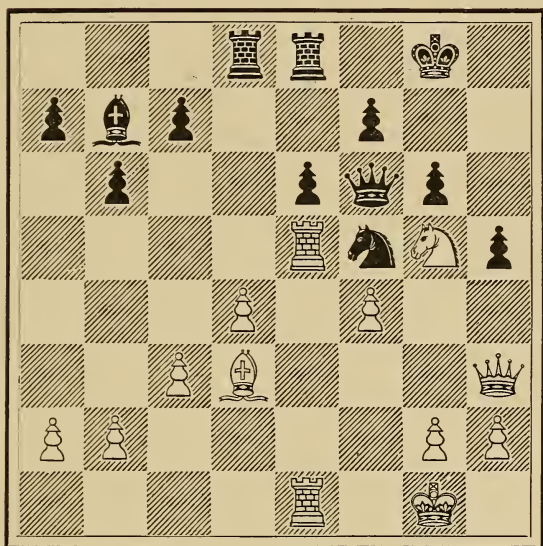
HERR ANDERSSSEN.

- 15. Q — B 1.
- 16. K — R 1.
- 17. R — K Kt 1.
- 18. P — K Kt 4.

THE EN POTENCE (*White*).

FIGURE 41.

STAUNTON and OWEN.



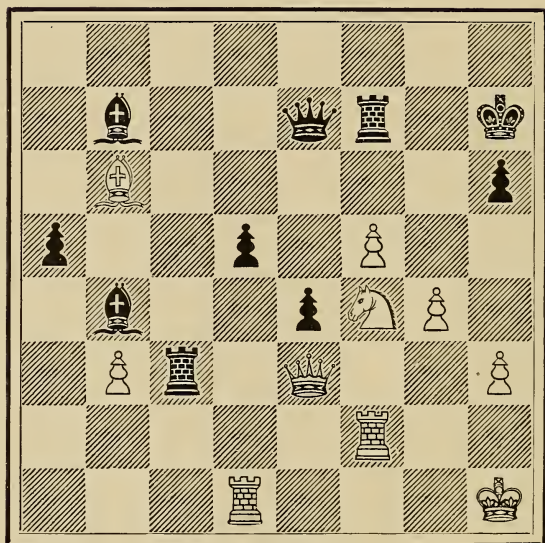
MORPHY and BARNES.

This position occurred at the 21st move in the second game of the famous consultation contest played at Birmingham, England, 1858. White won.

THE FIANCHETTO (*Black*).

FIGURE 42.

PAUL MORPHY.



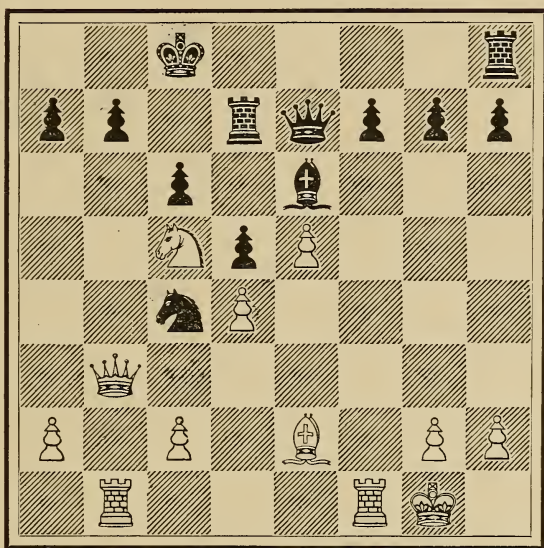
MR. MONGREDIEN.

This position occurred at the 43d move in the third game between these players.

CROCHET ALIGNED IN DOUBLE FRONT BY THE RIGHT
(*White*).

FIGURE 43.

JACOB LÖWENTHAL.



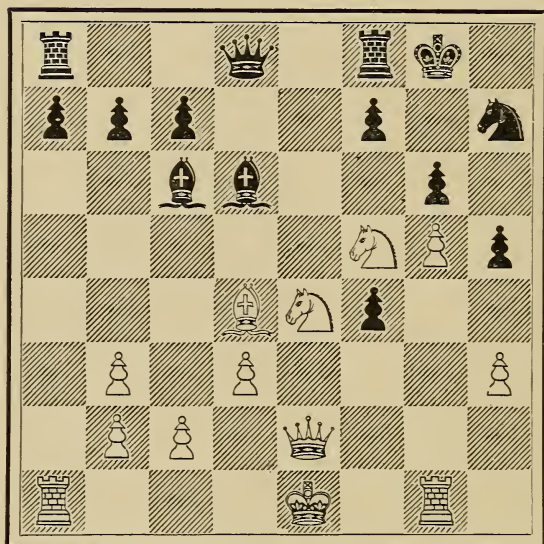
PAUL MORPHY.

This situation occurred on the 20th move in the twelfth game of the match between these masters.

CROCHET ALIGNED IN DOUBLE FRONT BY THE LEFT
(White).

FIGURE 44.

THEODORE LICHTENHEIN.



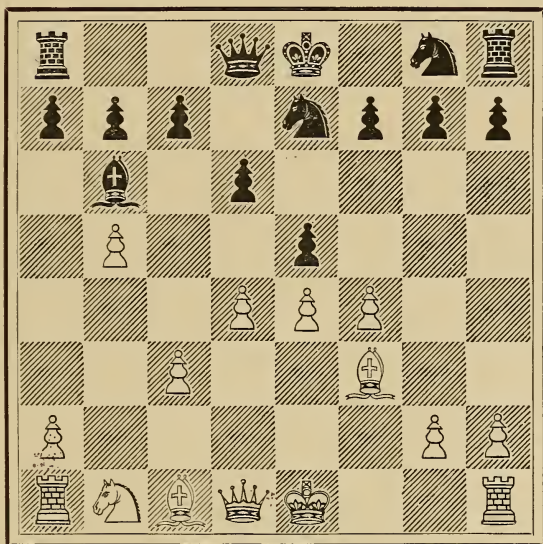
PAUL MORPHY.

This position occurred at the 20th move of a Petroff Defence. White won.

MINOR FRONT DOUBLY ALIGNED (*White*).

FIGURE 45.

JACOB LÖWENTHAL.



PAUL MORPHY.

This situation occurred in the fourth game of the match between these masters.

The student perceives that the column of attack is composed of a force represented by the *combined action* of all those kindred pawns and pieces which at any given time are contained within the Topographical Zone, and that the movements and operations of the column of attack always are restricted to the limits of the visible, or material chessboard.

It also is equally evident that the column of support is composed of a force represented by the *combined action* of all those kindred pawns and pieces which at any given time are contained within the Topographical Zone ; whose operations always are exclusively directed against the logistic horizon with the object of occupying one or more points of junction with a kindred pawn ; but whose movements technically are restricted to the limits of the kindred Hypothetical Zone, *i. e.*, to that part of the mathematical or invisible chessboard which appertains to the kindred body of chesspieces.

Lastly, it easily is seen that the column of manœuvre is composed of a force represented by the *combined action* of all those kindred pawns and pieces which at any given time are contained within the Topographical Zone ; whose operations are exclusively directed against the adverse column of support and for the defence of the kindred strategetic rear, with the sole object of preventing any hostile pawn from penetrating to its logistic horizon and occupying a point of junction ; but whose movements technically are restricted to the limits of the adverse Hypothetical Zone, *i. e.*, to that part of the mathematical or invisible chessboard which appertains to the adverse body of chesspieces.

As the student already has been taught, whenever a line of operations exists, all principles may be violated, all formations disrupted, which are not germane to the

immediate calculation ; *i. e.*, in all cases wherein *the winning of the game* can be mathematically demonstrated, either by the checkmate of the adverse king, by the queening of a kindred pawn, or by the gain of adverse material ; then, that analytical calculation whereby such determinate result is obtained is supreme. For all the elements being known, the situation may be depicted accurately, and consequently the process is exact and is merely one of simple arithmetic.

But in all other cases, *i. e.*, wherein no line of operations can be demonstrated, then, as the student likewise has been taught, the situation properly is one of manœuvre, *i. e.*, one in which a systematic attempt is being made to bring about the position termed a line of operations.

In this case, one or more of the elements are not known, the situation, therefore, cannot be exactly depicted ; it is first necessary out of the midst of the differences which exist to extract harmony ; consequently, the process is one of the differential calculus.

Hence, as the student already has been taught in such situations, no principle of strategy nor of tactics, nor of logistics, should be violated ; no sacrifice of material should be made, and no formation constructed in accordance with this theory should be disintegrated.

The student thus will easily perceive, that in compliance to the requirements of these principles, and to the basic law of the Science of Chess Strategetics of which these principles are but the corollaries, *at every move the column of attack, the column of support, and the column of manœuvre must act together as a unit for the defence of the kindred and for the attack of the adverse position.* It equally is obvious that the three-fold duties which respectively appertain to these columns,

taken collectively, are devolved, in the execution, upon the sixteen *corps d'armée* which originally constitute the chessic army, *i. e.*, that these sixteen kindred chesspieces are required, as it were, to multiply themselves threefold, and to perform the labors of forty-eight *corps d'armée*; and that, instead of contemplating the movements of thirty-two men on a chessboard of sixty-four squares, the calculations of the chessplayer comprehend the deployments, developments, manœuvres, and operations of combined kindred and adverse determinate and hypothetical forces represented by ninety-six pawns and pieces, over the surface of a mathematical chessboard composed of one hundred and seventy-six squares; *two-thirds of the chesspieces and two-thirds of the chessboard being invisible.*

The student of strategetics, whether of war or of chess, readily sees the mathematical exactness of this vast chessic proposition, and equally so, that in comprehensiveness and in profundity it easily is equal to any proposition known to military art and science. Hence, to the soldier and to the chessplayer alike, it is obvious that the following is true and valid:

SECOND LAW OF THE ART OF CHESSPLAY.

At every turn to play and no line of operations existing, always act simultaneously with the Column of Attack in the Topographical Zone, with the Column of Support in the Kindred Hypothetical Zone, and with the Column of Manœuvre in the Adverse Hypothetical Zone, and always reject every move which violates those principles governing the processes incident to these Prime Strategic Factors.

The student furthermore will see that whenever the kindred force is insufficient to give checkmate it cannot

win the game ; that whenever no kindred pawns remain on the board, no further reinforcement of the original kindred force is possible, and that whenever no adverse pawns remain on the board, there is no longer any necessity for guarding the strategic rear. Hence, it is obvious that the following is true and valid :—

THIRD LAW OF THE ART OF CHESSPLAY.

I. *The Column of Attack ceases to exist whenever the net value of the Kindred Determinate Force is less than the mobility of the Objective Plane.*

II. *The Column of Support ceases to exist whenever the last kindred promotable factor is eliminated.*

III. *The Column of Manœuvre ceases to exist whenever the last kindred point of impenetrability is eliminated.*

In the position shown in the diagram following, Black has a column of support, but no column of attack nor column of manœuvre ; while White has columns of attack and of manœuvre, but no column of support.

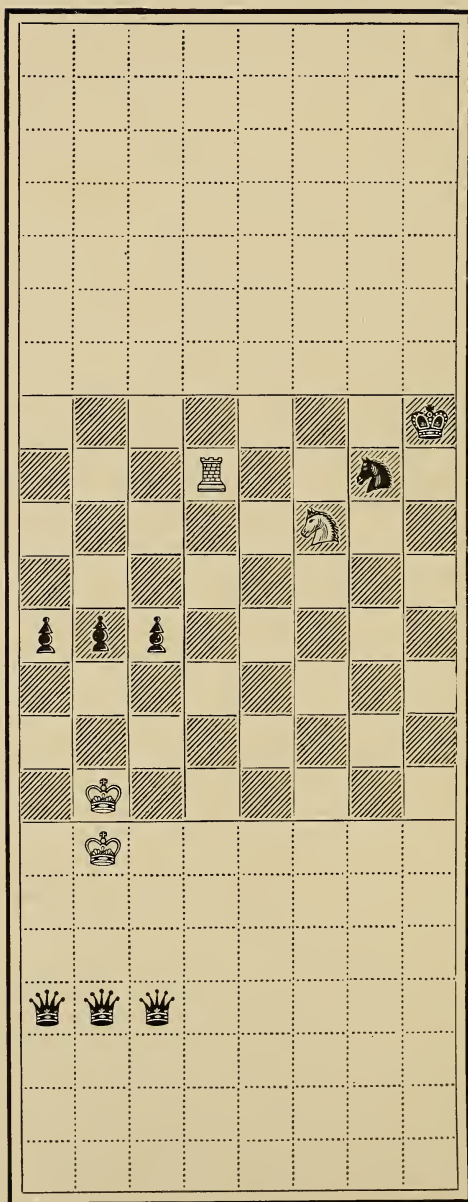
NOTE. — The student readily perceives that the combined White Rook and Knight constitute a column of attack movements, as they jointly are able to command the Objective Plane ; that the three Black Pawns are a column of support, and that the White King is a column of manœuvre, inasmuch as it can defend the white strategic rear against the Black Pawns.

FOURTH LAW OF THE ART OF CHESSPLAY.

In every situation and at every turn to move, always manœuvre either with that kindred Prime Strategic Factor which has the advantage ; or with any Kindred Factor to make subordinate a dominant adverse Prime Strategic Factor.

Black.

FIGURE 46.

*White.*

PROCESSES OF GREATER LOGISTICS
(MAJOR).

PROCESSES OF GREATER LOGISTICS

(MAJOR).

The student who attempts to master this volume without having thoroughly familiarized himself with "Minor Tactics," "Major Tactics," and "Grand Tactics," will have his labor for his pains.

Before he can comprehend the art of chessplay, he must first have thoroughly educated himself in the science of chess; it is not possible that one may understand the processes of Greater Logistics and the complexities of Lines of Manœuvre and of Operation, until he first has fathomed the preparatory intricacies of Lesser Logistics, as interpreted in Lines of Mobilization and of Development.

In fact, it is now necessary to assume that the student has the whole chessic theory, as laid down in the three preceding volumes of this series, at his fingers' ends, so to speak; and that, in actual play over the board, he is not at loss to know the proper construction of any given primary base, to know how to mobilize and how to develop any desired strategic front, and how to avoid those errors in tactics whereby he may fall victim to a superior knowledge of routine evolutions on the part of his opponent.

In other words, there is no "climbing in through the cabin window," as the sailors say; the road to chessic excellence is steep and rugged, and even the directness

and clearness of this synthetic method of chessplay can be of no avail to one who is ignorant of its simplest processes.

As the student already has been taught, all calculations having but a single point of command belong exclusively to the domain of Major Tactics; they are determinate propositions, and are solved by simple arithmetic; and until the student has thoroughly mastered them, he should confine his studies to the second volume of this series. For a similar reason, if the student is not entirely familiar with the proper construction of the several strategic fronts and of the direction which should be given to each; and if he does not comprehend the utility of the various supplementary formations which appertain to these strategic fronts,—he should continue the study of “Grand Tactics” until he has acquired the knowledge which fits him to approach this volume with some slight idea of its import. In case he is ignorant even of the construction of primary bases, and the reasons therefor, then the “Minor Tactics of Chess” is the book he needs,—not this one.

As before has been laid down, both the science of war and the science of chess are based upon the axiom that, all else being equal, two men can whip one. The art of warfare and the art of chessplay consist in getting the two men *simultaneously upon the other man's back*. So simple and so indisputable are the principles and the processes appertaining to the science of war in the abstract, that even savages utilize them with vigor and accuracy, and every civilized man, whatever his condition, feels himself competent to sit in solemn and final judgment on the profoundest military propositions, regardless of the fact that since the dawn of history only eleven men, out of many billions, have evinced a thor-

ough understanding of the concrete processes of the art of warfare.

In chess it is much the same. The practitioner, as a rule, and whatever may be his rank in the chess world, usually overestimates his weight in the chessic scale, — a fact upon which the famous master Mackenzie once commented, “We are none of us so strong as we think we are.”

The reason of this is that the minds of ordinary humanity seldom rise above the processes of simple arithmetic. So long as the proposition is exact, and all of the elements are *known*, even the tyro, whether at war or at chess, gets along fairly well; his operations in the field or on the chessboard are successful, and his judgments, whether in military or in chessic councils, are just and conclusive.

This condition, whether on the chessboard or on the battlefield, is the triumph of mediocrity, and is due to the fact that the theorist pure and simple is the most pitifully helpless and useless of all human beings. On the other hand, the man with but little education, yet possessed of the faculty of making full use of what knowledge he has, is the man more properly equipped for success, whether in chessplay, in warfare, or, for that matter, in anything else.

But let a man arise who combines the thorough understanding of theory with the thorough understanding of those processes whereby theory is correctly applied, whether in chessplay or in warfare, and you have Morphy and Napoleon. Those processes, whereby theory properly is applied in actual warfare or in chessplay, are *not* the processes of simple arithmetic. This is the reason why there is but one Morphy in the annals of Chess and but one Napoleon in the annals of War. Any-

body can simultaneously attack one man with two men, either on the chessboard or on the battlefield, — if he is given *time* enough, and no *resistance* is made by the single man. But the moment that the *unknown* elements of the single man's *resistance* and of *time* and *distance* enter into the calculation, then the proposition becomes indeterminate; it is no longer a sum in simple arithmetic, but a problem in the differential calculus. It is now that the theorist, pure and simple, although utterly impotent, inasmuch as his comprehension of the science is offset by his lack of understanding of the art, nevertheless rubs his hands and howls with glee at the sight of so-called "practical" chessplayers or soldiers — mere *arithmeticians*, rather — ignominiously overthrown, horse, foot, and dragoons, as the old saying is, by a "genius," a "prodigy," a "supernatural intelligence," which last, being interpreted, simply means that a man has come to the top who thoroughly comprehends both the theory and the art of applying it.

Thus the student will observe that there is nothing miraculous in the fact of a boy of twenty-one, in the person of Morphy, defeating with ease and in the most brilliant manner the greatest chessmasters of his day; nor in a boy of twenty-six defeating the greatest generals of his day with equal ease and in an equally brilliant manner. Both of these prodigies are dead and gone, and both are by posterity admitted to stand at the head of their respective professions. The success of the one was due to the fact that he had a theory in regard to chess, and thoroughly understood the art of applying this theory in actual chessplay, for the overcoming of time, of distance, and of the resistance of the opponent; the success of the other was due to the fact that he had a theory in regard to war, and thoroughly understood the

art of applying this theory in actual warfare for the overcoming of time, of distance, and of the resistance of the opponent.

The reason why the generality of men are neither Morphys nor Napoleons is because the generality of men base their conclusions upon results; because they are ignorant of the causes which bring about these results; and because they are oblivious to the fact that *causes and not results* are the prime essentials for success, and that in comparison with these causes, mere results are matters of insignificance, being at most nothing but necessary sequences.

Consequently, the generality of men never look deeper than mere results, and, sillily accepting these latter as primary elements, they project a horizon lacking in exactness and comprehensiveness. Then by a simple process of addition and subtraction — in which all their mental energy not infrequently is expended — they gain what success they do gain, not as the logical outcome of profound and accurate calculations, but as the direct outcome of blunders on the part of the opponent, and because these blunders happen to be more numerous and more egregious than those which they themselves commit.

That is to say, the processes of ordinary chessplayers and of ordinary generals at best are no more than the processes of Major Tactics, — processes which are simple and exact; whose results are determinate, and whose validity depends upon the commission of a blunder by the opponent and not infrequently upon the commission of such a blunder as logically only the tyro in chessplay or in warfare should be guilty of.

On the other hand, the processes of Napoleon and of Morphy are based upon logical deductions as to the relative values of *causes*, whereby harmony of theory is

established in the midst of tactical and strategic differences created by *lack of time*, topographical obstacles, and the *resistance of the enemy*. These processes of the differential calculus, infinitely superior to the methods of the average chessplayer and of the average general, are thus defined by Napoleon : —

“Questions of high tactics are indeterminate physico-mathematical problems, which admit of several solutions, and cannot be determined by the formulas of elementary geometry.”

Every school-boy is familiar with the fact that Napoleon won his victories before his battles were fought by sticking his map of Europe full of pins surmounted by divers-colored balls of sealing-wax. This performance is thus described by the distinguished military writer, Baron de Jomini : —

“Napoleon knew how to collect together, with admirable precision, upon the decisive point of the zone of operations, his *corps d'armée* which previously had departed from the most divergent posts. The choice of this decisive point was a skilful strategic combination, and the calculation of the movements of the *corps d'armée* was a logistic operation which emanated from his closet. Furnished with a compass opened at a scale of from seven to eight leagues in a right line, leaning over and sometimes lying down upon his map, where the positions of his *corps d'armée* and the presumed position of the enemy were marked by pins of different colors, he ordered the movements of his army *with an assurance of which it would be difficult to give a just idea*. Moving the compass with vivacity upon the map, he judged, *in the twinkling of an eye*, of the number of marches necessary to each of his corps for arriving at *the point where he wished to have it at a given day*; then placing his pins in these new positions and

combining the rapidity of the march which it would be necessary to assign to each of their columns with the possible epoch of their departure, *he dictated those instructions* which of themselves alone would be a title to glory."

This extract is quoted for more than one reason, and among others to show how easy it is for a man to write interestingly, even upon a subject of which he is totally ignorant. The Baron de Jomini is the most conspicuous example afforded by military annals of a theorist pure and simple, — *i. e.*, a man devoid of the least understanding of the art. He was educated in the regular service; was personally present in many campaigns, and for nine years served under Napoleon, *who never would intrust him even with the command of a battalion in the field*. Had Jomini possessed military ability equal to his enthusiasm and his industry, he obviously not only would have been the greatest of Napoleon's marshals, but he must have become even the rival of the illustrious Corsican.

The student who attentively reads the above extract from Jomini's "Art of War," p. 271, will at once notice an incongruity. Of course, there are a number of incongruities, but, in particular, the student will observe that Jomini, while seeming to explain Napoleon's calculation, utterly fails, —

1. To state the rule by which this *decisive point* is to be determined;

2. To describe the "*logistic operation*," whereby the *corps d'armée* were made to concentrate at this decisive point; or,

3. To formulate that grand law of the art of warfare, whereby Napoleon was enabled to solve "*in the twinkling of an eye*" propositions which on page 305 of

his Memoirs the great captain describes as “ problems of transcendant geometry which would have turned Lagrange and Laplace pale ; ” and of which he further opines, “ they [Lagrange and Laplace] would have studied *many nights* before they could free them from unknown quantities and have brought them to a solution.”

As a matter of fact, the Baron de Jomini had no idea of what Napoleon was doing as the latter lay prone upon his map of Europe, — whisking his dividers about over its surface, and sticking a red pin here, a blue pin there, and a yellow pin at some other place. There is a freemasonry among the great; it is not well for the upper stratum that the lower billions, however well these may theorize, should comprehend the *art* of warfare, the *art* of government, or the *art* of finance, not to mention, incidentally, a few other arts intimately connected with the foregoing. Neither Epaminondas, Alexander, Hannibal, Cæsar, Gustave Adolphus, Turenne, Prince Eugene, Frederic, Washington, nor Napoleon saw fit to put on paper, for the guide and enlightenment of the future man on horseback, the laws and processes of a complete and specific system of warfare; neither did Morphy, Anderssen, McDonnell, De la Bourdonnais, Deschappelles, Philidor, Petroff, Der Laza, Ghulam Kasim, Greco, Lolli, Salvio, Stamma, Ruy Lopez, Staunton, Buckle, Löwenthal, Harrwitz, nor any whose genius has illumined the literature of chess, see fit to put on paper the laws and processes of a complete and specific system of play.

But although these prodigies in chess and in war succeeded during their entire lifetimes in not divulging the secrets of their respective trades, and, dying, could take their vast knowledge with them out of the world, it was beyond the power even of Morphy to conceal the move-

ments made by the pieces under his guidance over the surface of the chessboard ; and beyond the power even of the greatest captain to obliterate the imprint made by his armies in march and in battle from the surface of the earth. Hence, he who intelligently can contemplate the processes of Morphy and the greater masters in chess, and the processes of Napoleon and the greater captains in war, may readily detect a similarity in their courses of procedure, and these processes, properly classified and arranged, obviously may be reduced to a system which latter may become available as the basis, not only of a theory, but of the true theory of chess and of war.

Although the Baron de Jomini understood nothing of the art of warfare, and but little of the science of war, on the other hand, his veracity as to facts which came under his personal observation is beyond question.

Therefore the following statement by the Baron de Jomini is of the highest value to the layman :—

“In my presence the Emperor (Napoleon I.) once remarked, ‘I know of but one way of making war, and that is—to act against the enemy’s communications.’”

This, of course, is the positive, the aggressive, the strategetic-offensive phase of that “way of making war” which is common to all great captains, from Epaminondas to Von Moltke. For the negative, the finessing, the defensive phase of scientific warfare, we must look to the words of the ablest of them all :—

“The art of the great captain,” said Frederic the Great, “consists in dividing up the enemy’s force.”

Both of these great soldiers meant the same thing, but each clothed the idea in words which reflected that method for applying this idea in warfare which was distinctively his own. In the first is seen a vast generalization, a contempt of detail characteristic of one whose

processes were nothing if not spectacular; and in the second is seen the exact, definite conclusion of the greatest organizer of victory on the battlefield that the world has ever seen.

Each meant to say that to seize upon and to occupy with your army the central space between two or more sections of a hostile army; or, to seize upon and to occupy with your army the central space between a hostile army and its base, is the chief idea in the science of war; and that so to manœuvre your army as either to compel or to outwit the enemy into permitting you thus to seize and to occupy with your army such central space, is the chief process in the art of warfare.

To effect the perfect union of science and of art is the province of mathematics. In this connection, as every mathematician knows, —

“ Things that are equal to the same thing are equal to each other.”

Every student of military science knows that if a superior force can unexpectedly be precipitated between two inferior bodies of troops, that one and possibly both of the latter will be destroyed.

Every student of this theory knows that if the point of command in any evolution be properly occupied by a kindred Prime Tactical Factor, the adverse force is lost.

Any man can understand that if a body of troops, or a body of chesspieces, can take up such a position that the occupation of this point of command, whether on the battlefield or on the chessboard, is assured, such occupation is *equivalent to the actual occupation* of the point of command, — for things that are equal to the same thing are equal to each other. That ancient Israelite, Shylock, was a strategist, and that he under-

stood the truth of the foregoing proposition is shown by his logical and conclusive statement: —

“You do take my house when you do take the prop by which my house stands!”

This statement admittedly is true; and chessplayer, soldier, and mathematician alike, having accepted it as a point of departure, may now start out in full accord to find out what the great Corsican was doing as he lay prone on his map of Europe, whisking his dividers over its surface, and sticking into it here and there divers-colored headed pins.

“It is much easier to defeat an enemy than commonly is supposed,” says Napoleon; “the great art lies in not making any but *decisive* movements.”

Thus, logically, it is obvious that when Napoleon, stretched out upon his map of Europe, was whisking his dividers about from point to point, he was planning a “*decisive movement*.” Furthermore, as he had selected a “decisive point,” and was combining by a “logistic movement” the concentration of his *corps d’armée* at that point, it again logically is evident that this decisive point was nothing more nor less than one of two things: —

I. The tactical key of a proposed field of battle; or,

II. That point whose occupation would insure the subsequent occupation of the tactical key of a proposed field of battle.

The military mind will recognize the logic of this assertion at a glance; for the benefit of others it may be well to remark that a diagram goes with this statement, which will be shown later.

Now, the tactical keys always are in the possession of the enemy (unless the situation is merely one of Major Tactics, and in which the opponent has committed

a tactical blunder which subjects him to loss, by means of a routine evolution), and the occupation of a tactical key in actual warfare is the normal outcome of a line of operations and the direct result of a pitched battle.

In the matter under consideration, it is obvious that Napoleon is not planning a battle; this is shown by the fact that he has selected, as the "decisive point," some place other than the one at which he then is; were a battle being planned, his corps would be concentrating about his present headquarters, for on the eve of a battle the great captain always is with his vanguard.

Hence, no battle being planned, it is evident that no line of operations exists, for a line of operations consists of a battle or a series of battles. Thus, Napoleon, not being engaged in destroying the enemy, is engaged in planning *how* to destroy the enemy, and consequently he is planning and preparing to act upon a line of manœuvre.

A line of manœuvre always is directed for one of the three following purposes: —

IN WARFARE.

I. To cut off the adverse army from communication with its base of operations.

II. To cut an army off from communication with a kindred army.

III. To cut portions of the same army off from communication with each other.

IN CHESSPLAY.

I. To cut the bulk of the Determinate Force off from communication with the King.

II. To cut the Hypothetical Force off from communication with the Logistic Horizon.

III. To cut off adverse pieces from communication with the bulk of the adverse Determinate Force.

Even the layman thus readily may understand that the objective of a line of manœuvre necessarily must be a point situated between two hostile masses, and that this point is a decisive point, provided the occupying force is strong enough to hold one of the hostile masses in check, while with the superior force it falls upon and destroys the second hostile mass.

Applied to chessplay, the student readily sees that this idea merely is the elaboration of what in Major Tactics is termed the subgeometrical symbol. In all such situations there being the choice of two battles, — *i. e.*, a battle against the one or against the other of the hostile bodies, — there necessarily must be two tactical keys. As it is required that the kindred force, when posted at the decisive point, shall act simultaneously against both of these tactical keys, or against those points whose occupation insures the subsequent occupation of at least one of the given tactical keys, it also is evident that this decisive point always is the centre of that geometric symbol of which the two tactical keys, or those points from whence they are commanded, are perimetral points. Furthermore, it is obvious that the kindred piece which occupies the decisive point must be that integer of chess force to which this geometric symbol appertains.

But it will be observed by the student that there is yet another consideration no less important than the foregoing, and that is: victory always is decided by the operation of the basic law of strategics, — the greater force always overcomes the lesser, — and therefore it is imperative that the radii of offence operated

by the attacking body shall be in excess numerically of the radii of defence operated by the defending body. Now it is obvious that in all situations wherein the forces are equal, one antagonist can obtain no advantage over the other except through the latter's error, and that the effect of such error always is to expose two points to be simultaneously attacked when such points cannot be defended in a single move, — that is to say, in the situation taken as an entirety, — the attacking force will operate at least one more radius of offence than the number of radii of defence operated by the opponent. Furthermore, it is obvious that the point from which this additional radius of offence is operated is the decisive point, and that this decisive point or strategic key naturally takes the form of the vertex of a triangle, or of the centre of a straight line whose extremities are occupied by tactical keys; *i. e.*, of those centres and vertices which in Major Tactics are termed points of command. Hence, to the student of war, or of chess, or of mathematics, the following is true and valid:—

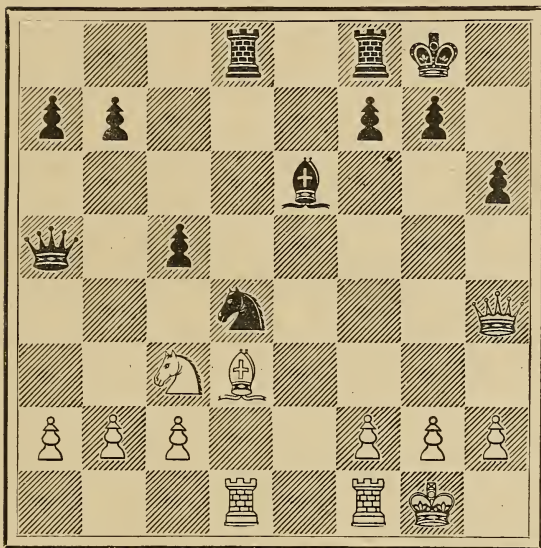
FIFTH LAW OF THE ART OF CHESSPLAY.

Whenever two tactical keys, or two points of command, or a tactical key and a point of command, are situated on the perimeter of the same geometric symbol, then the centre of the given geometric symbol is the strategic key.

THE STRATEGIC KEY.

FIGURE 47.

PAUL MORPHY.



JACOB LÖWENTHAL.

This position occurred in the first game of the match between these masters.

THE PLAY.

HERR LÖWENTHAL.

MR. MORPHY.

18. P—Q R 3.

Had White played otherwise, he would have lost a pawn. Black threatened to occupy the Strategic Key (Black Q Kt 5) with his Q, whence he would command the undefended White Q and the undefended White Q Kt P. As White could not in a single move have defended both of the pieces thus simultaneously attacked, one of them necessarily would be lost.

It is now easy for the student to understand that when Napoleon spread out his map on the ground and lay down upon it, the first thing he did was to stick into it a number of pins, each of which was surmounted by a wad of green sealing-wax, and represented a French *corps d'armée* and its position at the moment, and then to stick into the map as many pins covered with red sealing-wax as his information led him to decide was the number and position of the hostile *corps d'armée*. So far Jomini got the right idea, and the distinguished Swiss also is correct in his statement that Napoleon used his dividers to estimate distances and the marches of his troops. But here Jomini's knowledge of the Napoleonic process leaves off, *and the real understanding of the subject begins.*

Napoleon did *not* determine the decisive strategic point "in his closet," as Jomini states. It was only after the great Corsican had specified the position of his own, and of the opposing bodies of troops, that he did, or even that he could, so determine this decisive point; and he determined it in this way.

After Napoleon had marked out on his map the position of the contending armies, his next step was to find

a means for "*acting against the enemy's communications ;*" or, as Frederic puts it, "*to divide up the enemy's force.*" His method was this : —

Locating the extremities and the configuration of the enemy's strategic front, and noting exactly the relations of the latter to the existing topographical conditions, the great Corsican remarked that point which if occupied by his army would —

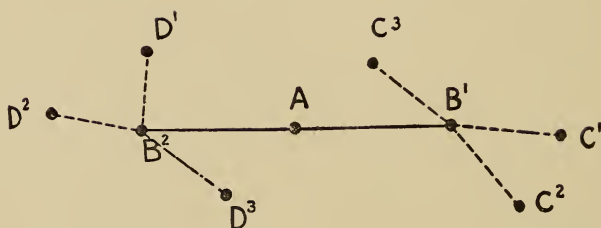
1. Cut the adverse army in two ; or,
2. Would cut the adverse army off from its base.

Then, regarding the army thus separated, either from its remaining integrals or from its base, Napoleon located, in the position occupied by these two prospective isolated integrals, those two points which, if occupied by his troops, would lead to the destruction in detail of each isolated hostile mass. These commanding points always are the tactical keys and usually are heights from which the whole of each prospective battleground may be enfiladed by artillery.

In chessplay, the tactical key always is that point *whose occupation either checkmates the adverse king, eliminates an adverse piece from the board, or queens a kindred pawn.*

Whenever the hostile army was massed in a single body, Napoleon always employed the second process, and manœuvred to cut the adverse army off from its base without exposing his own. But whenever the adverse army was not massed in a single body, he always made use of the first process, which in military mathematics may be expressed thus : —

FIGURE 48.



- A* Topographical Centre.
*B*¹ Point of Command in left wing.
*B*² Point of Command in right wing.
*C*¹ }
*C*² } Hostile Corps of left wing and tactical keys.
*C*³ }
*D*¹ }
*D*² } Hostile Corps of right wing and tactical keys.
*D*³ }

In order to understand how to locate these points of command, the student of war must study the campaigns of the greater captains, and the student of chess must study "The Major Tactics of Chess."

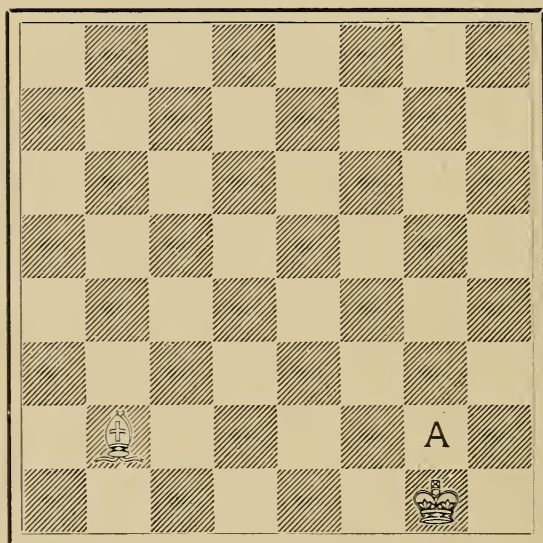
PRINCIPLE.

Having located two tactical keys, or two points of command, or a tactical key and a point of command, connect these by their most direct lines of communication and the points upon such lines equidistant in time between the two strategic vertices will be the topographical centre.

It is evident from this diagram that a kindred force posted at the point A commands the communications between the points B¹ and B² and thus prevents the adverse *corps d'armée*, C¹, C², and C³, from co-operating with the adverse *corps d'armée*, D¹, D², and D³. Nevertheless, it is equally easy to see that the kindred force will lose the advantage of this central position, if it permit all the adverse corps simultaneously to attack it at A, and consequently it obviously is imperative that the kindred force keep both of the adverse forces divided and at arms' length, so to speak, and that it attack them separately and not at the same time. Hence it follows that while the kindred superior force is destroying one of the inferior adverse forces, the kindred column on the opposite wing must hold the second hostile force in check and prevent it from interfering in the battle, or series of major tactical evolutions, which is being executed by the united kindred columns of the centre and left, against the first-mentioned hostile force.

All this is applicable to chessplay, and may be depicted on the chessboard thus: —

FIGURE 49.

Black.*White.*

NOTE. — A = Tactical Key which, if occupied by an adverse Queen, the existing Objective Plane (Class B) will be commanded.

White Q Kt 2 = Tactical Key which, if occupied by any adverse piece, will result in the loss of the White Q B.

As the B cannot be posted at White K Kt 2, and as a point cannot move, there is no Line of Communication.

The military principle may also be adapted to the chessboard, *viz.*: —

SIXTH LAW OF THE ART OF CHESSPLAY.

Having located two tactical keys, two points of command, or one tactical key and one point of command, then connect these two points by logistic radii, and those points at which the given logistic radii intersect will be points of communication, and that point of communication common to both will be the topographical centre.

Having first disposed of this most important preliminary calculation, Napoleon next proceeded to determine the strategic key of the adverse position, that is, the point from which — his columns of the right and the left having taken up their proper positions against the hostile left and right, respectively — he could throw his column of the centre against whichever of the adverse isolated masses that he might choose.

Consequently the student of mathematics readily sees that it is imperative that this decisive point be: —

1. Nearer in time to that topographical centre which in the given situation is the true point of communication, than is any equal adverse force; in order to prevent its being occupied by the enemy.

2. Equidistant in time from the two tactical keys; or the two points of command, or the tactical key and the point of command, in order to be able to attack either with like facility.

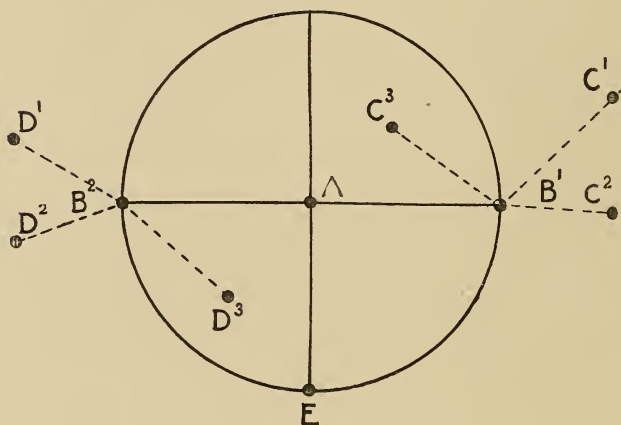
Consequently the rule for locating this strategic key is easy to deduce, and both Napoleon and the student of mathematics solved the problem with equal readiness, *viz.*: —

RULE.

The Topographical Centre being given, describe a circle of which this point is the centre, and whose circumference passes through the points of command; then draw a second diameter at right angles to the first diameter, and the point where the second diameter intersects this circumference is the strategic key.

This may be mathematically expressed thus: —

FIGURE 50.



A Topographical Centre.

*B*¹ Point of Command in hostile left wing.

*B*² Point of Command in hostile right wing.

*C*¹ }
*C*² } Hostile Corps on left wing and tactical keys.
*C*³ }

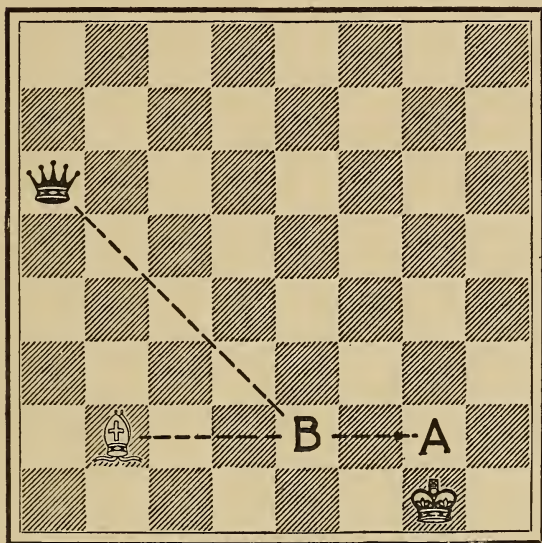
*D*¹ }
*D*² } Hostile Corps on right wing and tactical keys.
*D*³ }

E Strategic Key.

This also is applicable to chessplay, and may be depicted on the chessboard thus:—

FIGURE 51.

Black.



White.

A = Tactical Key.

White Q Kt 2 = Tactical Key.

B = Strategic Key.

Black Q R 3 = Point of Manœuvre of White corps of the centre.

Black Q R 3 + B = Route of White corps of the centre.

The student thus will perceive that, by the plain and exact process of logical deduction, a tangible situation now is established and that this situation is composed of a prime strategic point, two prime tactical points, one or more known points occupied by kindred *corps d'armée*, and two or more known points occupied by adverse *corps d'armée*.

Napoleon, having thus mathematically determined the strategic key, then, according to Jomini, proceeded to whisk his dividers about the map and to calculate the movements of a "logistic operation," in order to get each of his *corps d'armée* "*to where he wished to have it on a given day.*"

As neither the Baron de Jomini nor any other military writer has seen fit to inform us of the nature of this "logistic operation," nor to elucidate the processes incident to its execution, it seems proper and even necessary for us to make the discovery for ourselves.

At the very beginning of this logistical calculation, we must, of course, get down to first principles and come at once to a correct understanding of what we want to do. As a matter of fact, the object of this logistical operation is to place, in the briefest time, the attacking force at those points where, —

1. It divides the hostile force into at least two isolated masses.

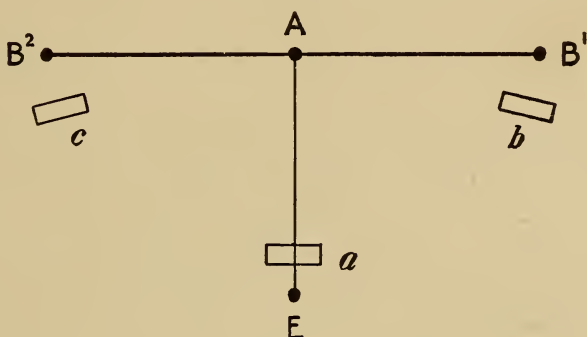
2. Controls the communication between these two or more isolated masses, thus preventing them from reuniting.

3. Acts simultaneously against two tactical keys, or two points of command, or a tactical key and a point of command; and proposes, from a central post, to converge a third column against one or the other of the

adverse points at a time when it is impossible for such adverse point to be properly reinforced.

This projected situation may be mathematically expressed thus:—

FIGURE 52.



- A* Topographical Centre.
- B¹* First Point of Command, or tactical key.
- B²* Second Point of Command, or tactical key.
- E* Strategic Key.
- a* Kindred Corps of the Centre.
- b* " " " Right.
- c* " " " Left.

From this diagram the student readily sees that each of the kindred corps has a specific destination. Napoleon determined this destination, as the mathematical mind readily perceives, by the following:

RULE.

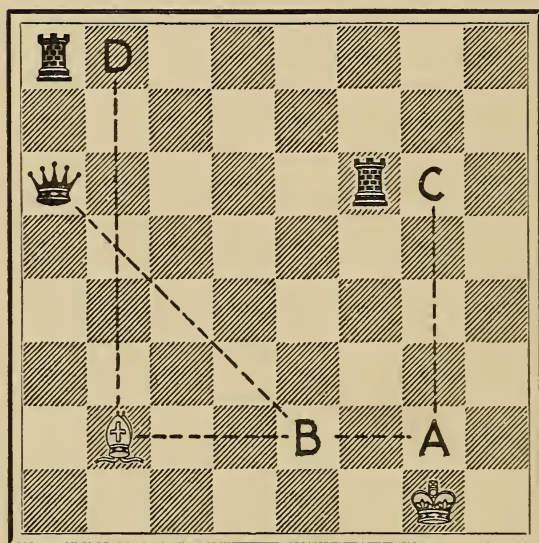
Given the strategic key and taking it as a centre, describe a circle whose circumference shall pass through the topographical centre; then, unite the strategic key with the adverse points of command by straight lines,

and the points where these lines intersect the given circumference will be the destinations of the kindred columns of the right and of the left, respectively. Obviously, the strategic key always is the destination of the column of the centre.

This position may be depicted on the chessboard thus :

FIGURE 53.

Black.



White.

K Kt 1 = An Objective Plane of Class B which
may be commanded by a Q at K
Kt 2.

Q Kt 2 = Exposed Point Material.

K Kt 2 — Q Kt 2 = Strategic Plane of Class B capable of
being commanded by a Q or R.

- B = Strategic Key which in this position
should be occupied by a Q in order to
threaten mate at K Kt 2.
- Q R 3 = Point of Departure of Col. of Centre.
- Q R 1 = " " " Right.
- K B 3 = " " " Left.
- C = Point of Command in Left Evolution.
- D = " " Right Evolution.

The military principle may be adapted to the chess-board, *viz.* : —

SEVENTH LAW OF THE ART OF CHESSPLAY.

Given the strategic vertices, then unite each of these with a kindred piece by means of logistic radii which appertain to the kindred piece, and the line formed by these logistic radii will be the route of the given piece ; and the number of logistic radii contained in such route will be the number of marches required of the given kindred piece.

It now remains to explain in detail the routes and the reasons therefor which must be taken by the three kindred columns. The student will recall the Napoleonic dictum, "Unity is the soul of strategy," and will observe that Napoleon's calculation is based upon the fact that this law has been violated by the enemy. Consequently the logical mind sees at a glance how imbecile it would be to imitate the error of the opponent, and easily comprehends that these three columns must march, not necessarily as a single mass, but at least as three united masses, *i.e.*, in such relative position that each may effectively cover and support the others.

Hence, while not moving as one body, the three columns yet must constitute the right, the centre, and the left of a grand army, and must simultaneously move toward three distinct and specific points, the *mere occupation of which*, all else being equal, will insure victory. Thus, to the military student and to the mathematical mind it is obvious that the following is true and valid :

EIGHTH LAW OF THE ART OF CHESSPLAY.

The destinations of the Corps Offensive being determined, unite these by logistic radii with the points of departure, and the resultant lines will be the routes of the kindred corps respectively.

E Strategic Key.

F¹ Destination of kindred Left Column.

F² " " " Right Column.

G Point of Departure of Centre Column.

H " " " " Right "

I " " " " Left "

EG Route of kindred Column of the Centre.

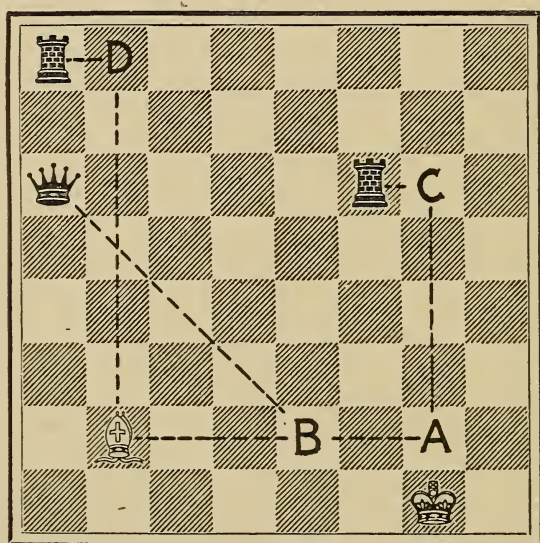
F¹H " " " " Right.

F²I " " " " Left.

All this appertains to chessplay, and the situation may be depicted on the chessboard thus:—

FIGURE 55.

Black.



White.

- A = Tactical Key in Left Evolution.
- White Q Kt 2 = Tactical Key in Right Evolution.
- B = Strategic Key.
- Q = Corps of the Centre.
- Q R = Corps of the Right.
- K R = Corps of the Left.
- C = Point of Command in Left Evolution.
- D = Point of Command in Right Evolution.
- Q R 1 = Right Point of Manœuvre.
- K B 3 = Left Point of Manœuvre.
- Q R 3 = Central Point of Manœuvre.
- Q R 1 — D = Route of Corps of the Left.
- Q R 3 — B = Route of Corps of the Centre.
- K B 3 — C = Route of Corps of the Right.

STRATEGIC HORIZONS.

The method whereby the great Corsican constructed his Strategic Horizon thus having been outlined, and the adaptation of this method to the chessboard indicated, the student readily will understand that the detail processes which appertain to the method thus adapted to the chessboard necessarily are but logical sequences, — mere corollaries of the general principles laid down in the preceding volumes of this series.

As the first and a most essential detail in the application of Napoleon's system of warfare to chessplay, the attention of the student is called to the mathematical figure formed by combining the strategic key with the two tactical keys, or by combining the strategic key with the two points whence these tactical keys are commanded.

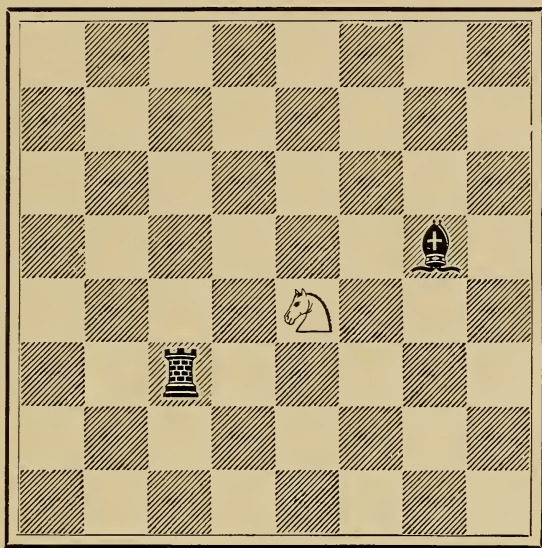
This mathematical figure is termed in this theory the *Strategic Horizon*, and these strategic horizons, it is important for the student to observe, are divided into three classes, viz. : —

I. Strategic Horizons in which the three vertices which appertain to the mathematical figure are a strategic key and two tactical keys.

STRATEGIC HORIZON.

(a.)

FIGURE 56.

Black.*White.*

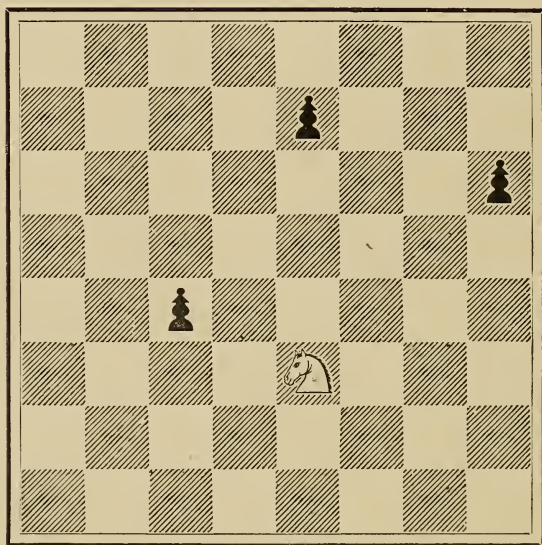
NOTE. — The White Kt occupies the strategic key. The Black K B and R occupy the tactical keys.

II. Strategic Horizons in which the three vertices are a strategic key, a tactical key, and a point of command.

STRATEGIC HORIZON.

(b.)

FIGURE 57.

Black.*White.*

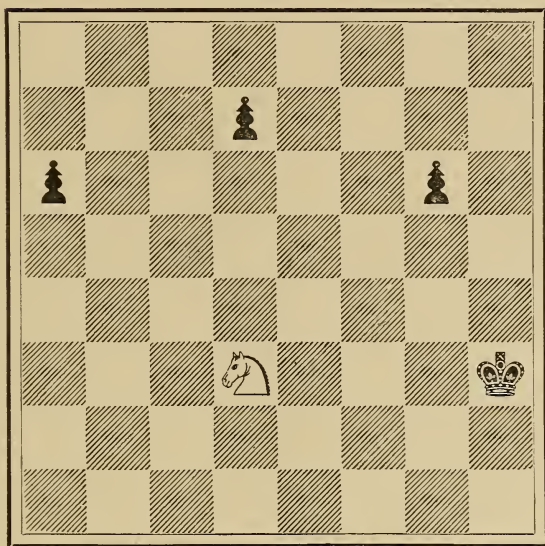
NOTE. — The White Kt occupies the strategic key ; the P at Black Q B 5 occupies the tactical key, and the point of command is Black's K B 4.

III. Strategic Horizons in which the vertices are a strategic key and two points of command.

STRATEGIC HORIZON.

(c.)

FIGURE 58.

Black.*White.*

NOTE. — The White Kt occupies the strategic key ; the points of command are Black's K B 5 and Q B 4.

That vertex contained in the strategic horizon and which is designated as the strategic key always is the centre of a geometric symbol, of which the other two strategic vertices are points on a common perimeter.

In consequence, there are fifteen mathematical figures which appertain to the strategic horizon, and the practical application of these fifteen mathematical figures to the chessboard is governed by the following: —

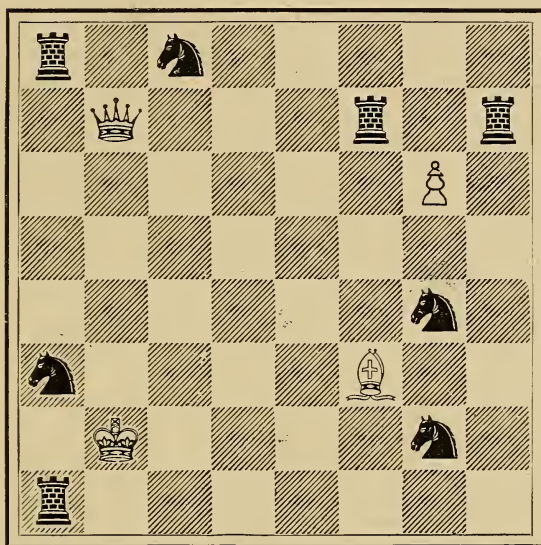
NINTH LAW OF THE ART OF CHESSPLAY.

Whatever the form of the strategic horizon, two of its sides always are radii of offence appertaining to the kindred corps of the centre, and the point where these radii intersect always is the strategic key.

A strategic horizon 1 is limited to the attack of two adjacent tactical keys or to two adjacent points of command situated diagonally on the front. It is typified by the geometric symbol of the Pawn, and in this system of chessplay it is designated by the letter *t*. The strategic key always is the apex and may properly be occupied either by the P, B, Q, or K.

STRATEGIC HORIZON (*t*).

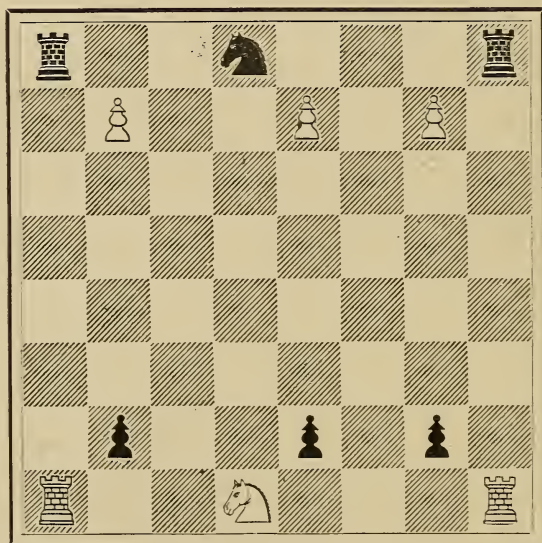
FIGURE 59.

Black.*White.*

A strategic horizon 2 is limited to the attack of the logistic horizon. This attack always is directed against two points of junction, one of which also is an exposed Point Material. It is typified by a right-angled triangle and is designated by the letter *r*. The strategic key always is a point in the seventh horizontal for White and in the second horizontal for Black, and cannot be properly occupied except by a kindred P.

STRATEGIC HORIZON (*r*).

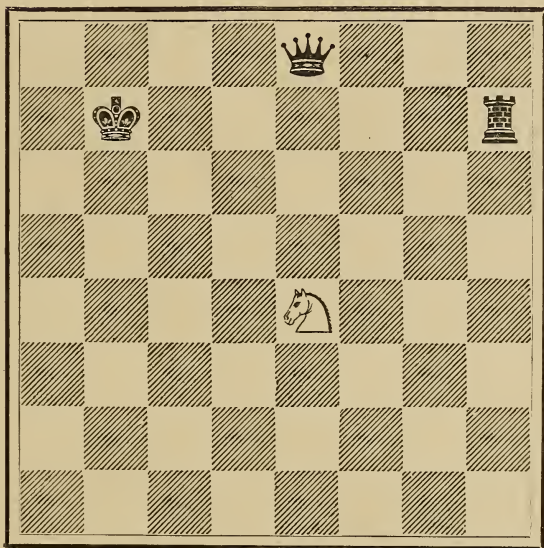
FIGURE 60.

Black.*White.*

A strategic horizon 3 is expressed by a triangle composed of the obliques which unite the centres of three knights octagons, the extremities being points of command in evolutions appertaining to the knight, and the vertex being the strategic key. This horizon is designated by the letter *O*, and cannot properly be occupied except by a kindred Kt.

STRATEGIC HORIZON (*O*).

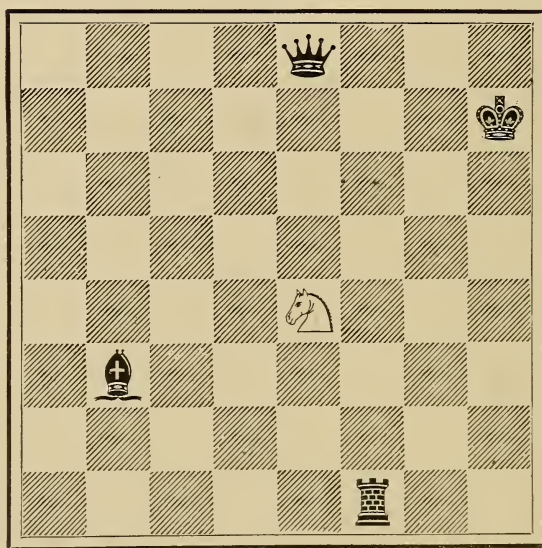
FIGURE 61.

Black.*White.*

A strategic horizon 4 is expressed by an oblique line, upon which are located the centres of three knights octagons, the extremities being either tactical keys or points of command in evolutions appertaining to the Kt, and the central point being the strategic key. This horizon is designated by the letter *o*, and cannot properly be occupied except by a kindred Kt.

STRATEGIC HORIZON (*o*).

FIGURE 62.

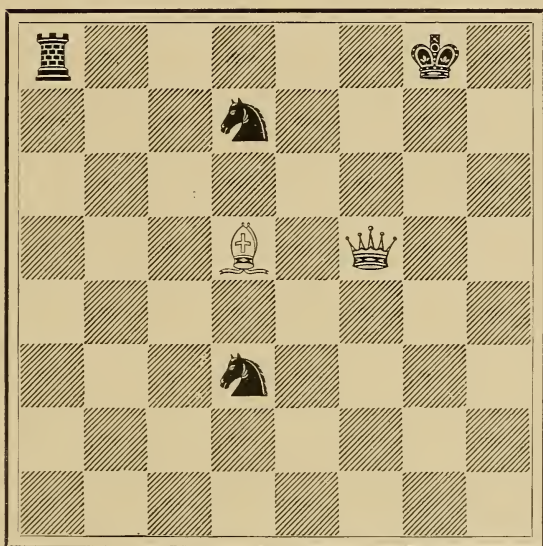
Black.*White.*

The oblique line is formed by the white points Q 2, K 4, and K B 6. The centre is the strategic key, and the extremities are points of command in evolutions appertaining to the Knight.

A strategic horizon 5 is expressed by the geometric symbol of the B. Its sides are diagonals, and the vertex is the strategic key. The latter properly may be occupied by the B or the Q. The extremities always are either tactical keys or points of command in other Bishop's triangles; or the centre of a Queen's polygon. It is designated by the letter *T*.

STRATEGIC HORIZON (*T*).

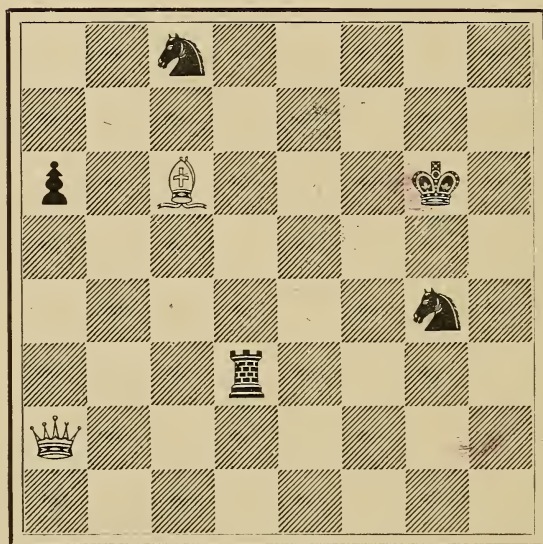
FIGURE 63.

Black.*White.*

A strategic horizon 6 is expressed by a diagonal upon which are situated the vertices of three Bishop's triangles and Queen's polygons, the extremities being either tactical keys or points of command in evolutions appertaining to the Bishop or to the Queen, and any point between these being the strategic key. This horizon is designated by the letter *D*, and cannot properly be occupied except by a kindred B or Q.

STRATEGIC HORIZON (*D*).

FIGURE 64.

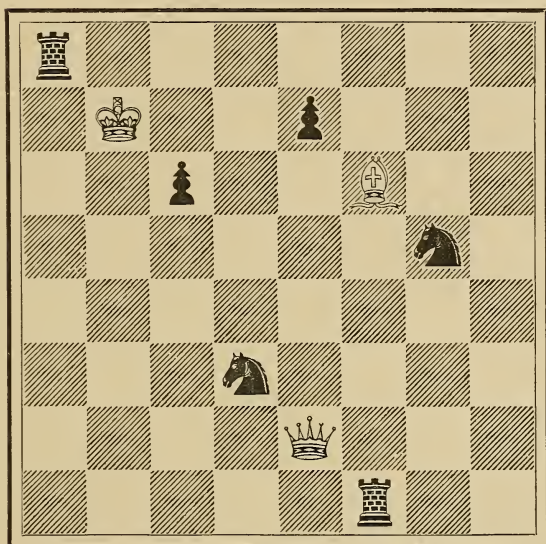
Black.*White.*

For the Q, the diagonal is formed by the white points, O R 2, Q B 4, and K 6 ; for the Bishop, the diagonal is formed by the white points, K 4, Q B 6, and Q Kt 7.

A strategic horizon 7 is expressed by a diagonal composed of three adjacent points, the extremities being either tactical keys or points of command appertaining to the B, Q, or K, and the central point being the strategic key. This horizon is designated by the letter *d* and cannot properly be occupied except by a kindred B, Q, or K.

STRATEGIC HORIZON (*d*).

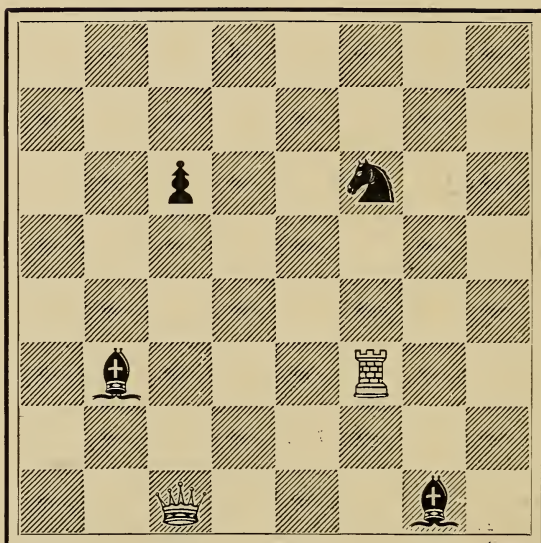
FIGURE 65.

Black.*White.*

A strategic horizon 8 is expressed by the geometric symbol of the Rook. Its sides are right lines, the angle is the strategic key, and the extremities are either tactical keys or points of command in evolutions which appertain to the R or Q. It is designated by the letter Q, and cannot properly be occupied except by the kindred R or Q.

STRATEGIC HORIZON (Q).

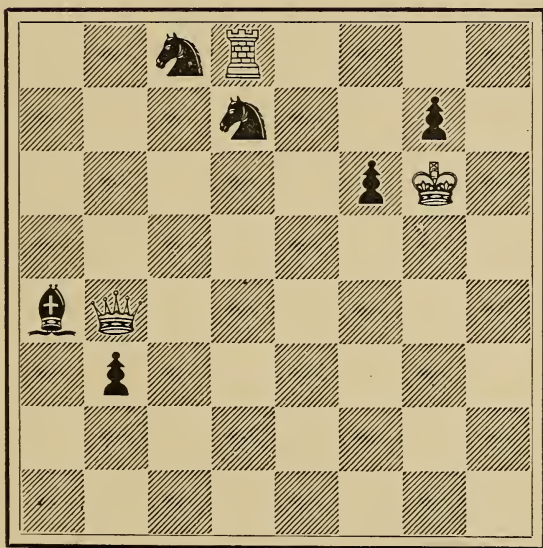
FIGURE 66.

Black.*White.*

A strategic horizon 9 is expressed by a right-angled triangle formed by three adjacent points, the angle being the strategic key and the extremities being either tactical keys or points of command in evolutions appertaining to the R, Q, or K. It is designated by the letter *q*, and may properly be occupied only by a kindred R, Q, or K.

STRATEGIC HORIZON (*q*).

FIGURE 67.

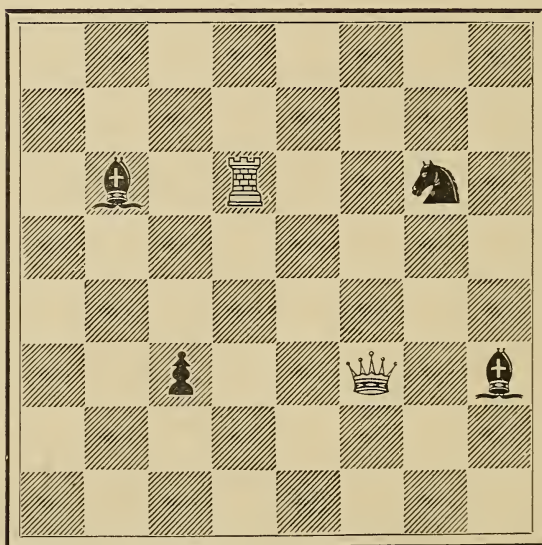
Black.*White.*

A strategic horizon 10 is expressed by a straight line formed by three points situated on the same horizontal, the extremities of which are either tactical keys or points of command in evolutions appertaining to the R or the Q, and the strategic key being any point between. This horizon is designated by the letter *H*, and properly is occupied only by a kindred R or Q.

STRATEGIC HORIZON (*H*).

FIGURE 68.

Black.

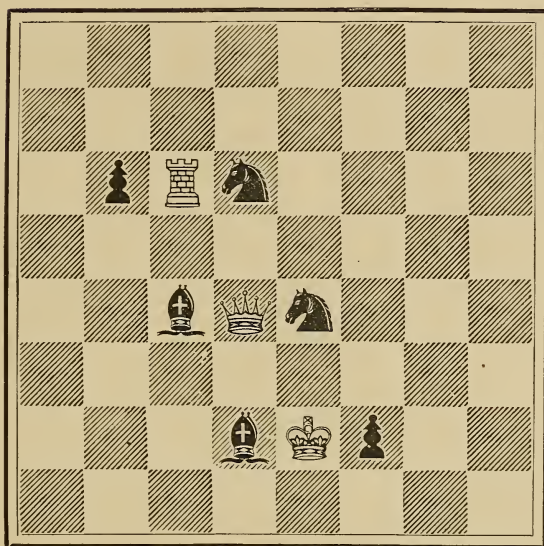


White.

A strategic horizon 11 is expressed by three adjacent points situated on the same horizontal, the central one being the strategic key and the extremities being either tactical keys or points of command in evolutions appertaining to the R, Q, or K. This horizon is designated by the letter *h*, and cannot be properly occupied except by a kindred R, Q, or K.

STRATEGIC HORIZON (*h*)

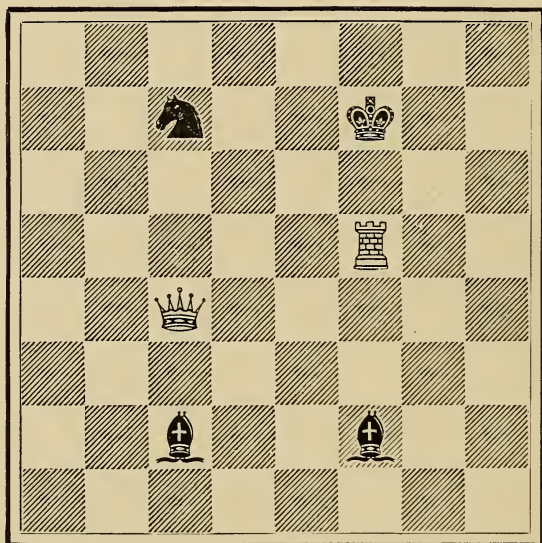
FIGURE 69.

Black.*White.*

A strategic horizon 12 is expressed by a straight line formed by three points situated in the same vertical, the extremities being either tactical keys or points of command in evolutions appertaining to the R or the Q, and the strategic key being any point between. This horizon is designated by the letter *V*, and properly is occupied only by a kindred R or Q.

STRATEGIC HORIZON (*V*).

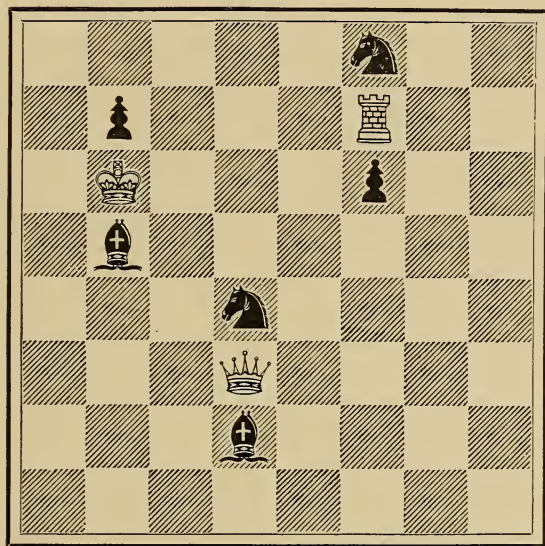
FIGURE 70.

Black.*White.*

A strategic horizon 13 is expressed by three adjacent points situated on the same vertical, the central one being the strategic key and the extremities being either tactical keys or points of command in evolutions appertaining to the R, Q, or K. This horizon is designated by the letter *v*, and cannot be properly occupied except by a kindred R, Q, or K.

STRATEGIC HORIZON (*v*).

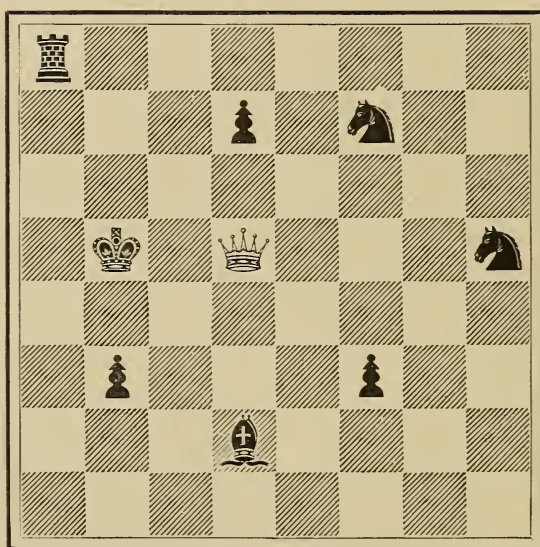
FIGURE 71.

Black.*White.*

A strategic horizon 14 is expressed by the geometric symbol of the Q, the centre being the strategic key and the extremities being either tactical keys or points of command in evolutions appertaining to the Q. This horizon is designated by the letter *P*, and can properly be occupied only by the kindred Q.

STRATEGIC HORIZON (*P*).

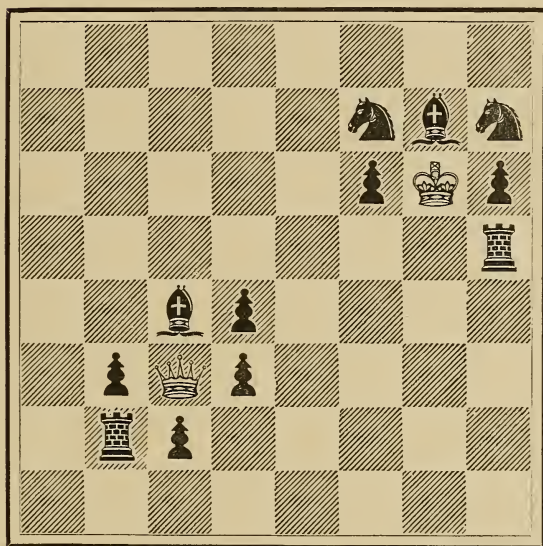
FIGURE 72.

Black.*White.*

A strategic horizon 15 is expressed by the geometric symbol of the King, the centre being the strategic key and the extremities being either tactical keys or points of command in evolutions appertaining to the Q or K. This horizon is designated by the letter *R*, and properly is occupied only by the kindred Q or K.

STRATEGIC HORIZON (*R*).

FIGURE 73.

Black.*White.*

TACTICAL HORIZONS.

The student will observe that whenever the strategic horizon consists of a strategic key and two tactical keys, the process is direct, and by the occupation of one of these tactical keys, either the adverse king is checkmated, or an adverse piece is captured, or a kindred pawn is queened.

But when the strategic horizon contains one or more points of command, there exists what is termed in this theory a *Tactical Horizon*.

Tactical Horizons are formed by the union of the objective plane with the logistic horizon, or with the geometric symbols appertaining to the various integers of chess force, or with the formations appertaining to the several strategic fronts; or by the union of these latter with each other.

Tactical Horizons are divided into ten classes and are governed by the following:—

TENTH LAW OF THE ART OF CHESSPLAY.

Every Corps Offensive must be a competent Prime Tactical Factor in that geometric plane against which it is directed.

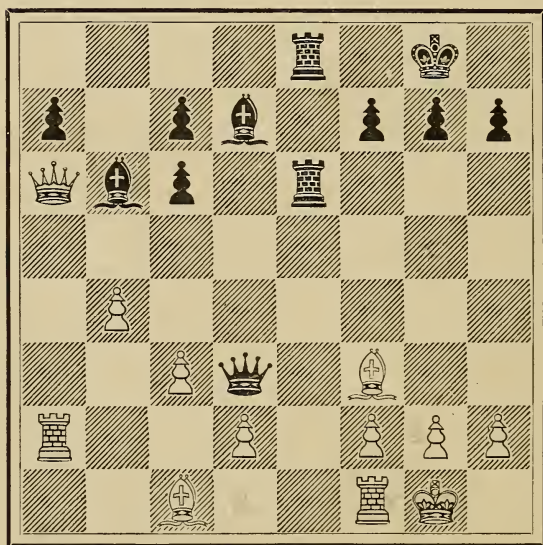
A Tactical Horizon of Class I. is composed of a Strategic Plane. It results from a strategic weakness of Classes I. or II.; it is the legitimate outcome of a complex line of manœuvre and always is the ultimate situation in a strategic line of operations.

TACTICAL HORIZON.

(First Class.)

FIGURE 74.

PAUL MORPHY.



LOUIS PAULSEN.

This position occurred at the First American Chess Congress in the match between these masters.

THE PLAY.

HERR PAULSEN.

MR. MORPHY.

- | | |
|----------------|---------------------|
| | 17. Q × B. |
| 18. P × Q. | 18. R — Kt 3 (ck). |
| 19. K — R 1. | 19. B — R 6. |
| 20. R — Q 1. | 20. B — Kt 7 (ck). |
| 21. K — Kt 1. | 21. B × P (dis ck). |
| 22. K — B 1. | 22. B — Kt 7 (ck). |
| 23. K — Kt 1. | 23. B — R 6 (ck). |
| 24. K — R 1. | 24. B × P. |
| 25. Q — K B 1. | 25. B × Q. |
| 26. R × B. | 26. R — K 7. |
| 27. R — Q R 1. | 27. R — K R 3. |
| 28. P — Q 4. | 28. B — K 6. |

Black won.

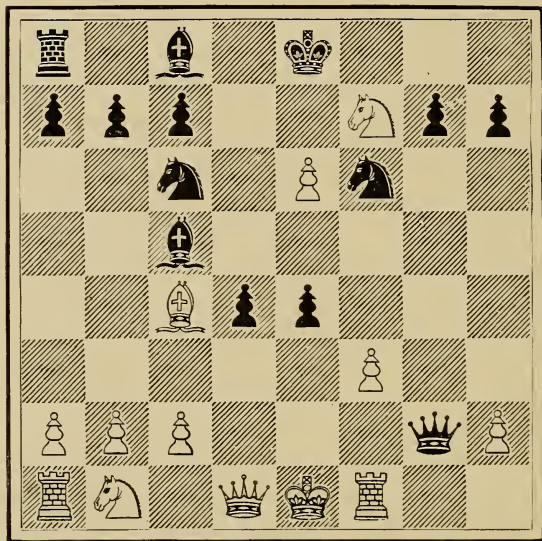
A Tactical Horizon of Class II. is formed by the union of a Strategic and a Logistic Plane. It results from a strategetic weakness of Class IV.; it is the legitimate outcome of a complex line of manœuvre, and always is the ultimate situation in a strategic or a logistic line of operations.

TACTICAL HORIZON.

(Second Class.)

FIGURE 75.

PAUL MORPHY.



MR. BARNES.

THE PLAY.

MR. BARNES.

MR. MORPHY.

15. Kt — Q R 3.
16. B × B.
17. Q × Kt.
18. Castles Q R.
19. B — Kt 3.
20. K — Kt 1.
21. Kt — K 5.
22. Kt — Q 3.
23. Kt × B.

14. Kt — Q Kt 5.
15. B × K P.
16. Kt — Q 6 (ck).
17. P × Q.
18. B × Kt.
19. P — Q 7 (ck).
20. B — B 4.
21. K — B 1.
22. R — K 1.
23. Q × R.

Black won.

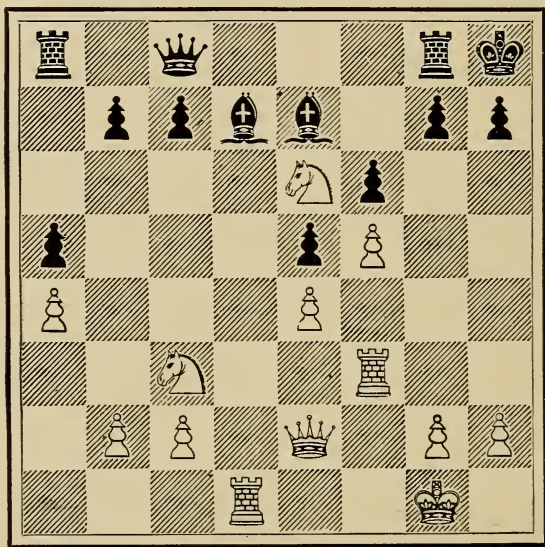
A Tactical Horizon of Class III. is formed by the union of a Strategic and a Tactical Plane. It results from a strategetic weakness of Class III.; it is the legitimate outcome of a complex line of manœuvre, and it always is the ultimate situation in a strategic or a tactical line of operations.

TACTICAL HORIZON.

(Third Class.)

FIGURE 76.

M. BAUCHER.



PAUL MORPHY.

This position occurred at Table No. 1 in the famous blindfold exhibition at Paris, 1858.

THE PLAY.

MR. MORPHY.

M. BAUCHER.

22. R — R 3.

22. P — K R 3.

23. Q — Q 2.

23. K — R 2.

24. Q × B.

24. B — Q 3.

25. R × P (ck).

25. K × R.

26. R — Q 3.

26. K — R 4.

27. Q — B 7 (ck).

White won.

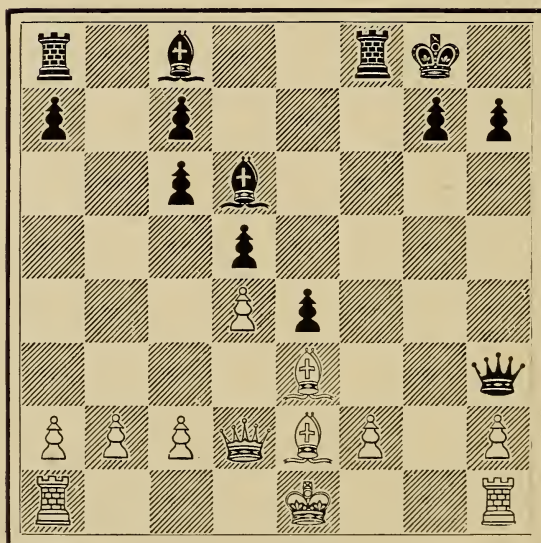
A Tactical Horizon of Class IV. is formed by the union of a Strategic Plane and a Strategic Front. It results from tactical errors on the part of the opponent ; it is the legitimate outcome of a simple line of manœuvre, and properly is preliminary to a complex line of manœuvre.

TACTICAL HORIZON.

(Fourth Class.)

FIGURE 77.

PAUL MORPHY.



MR. H. E. BIRD.

THE PLAY.

MR. BIRD.	MR. MORPHY.
	16. R — Q Kt 1.
17. Castles Q R.	17. R × K B P.
18. B × R.	18. Q — Q R 6.
19. P — B 3.	19. Q × R P.
20. P — Kt 4.	20. Q — R 8 (ck).
21. K — B 2.	21. Q — R 5 (ck).
22. K — Kt 2.	22. B × Kt P.
23. P × B.	23. R × Kt P (ck).
24. Q × R.	24. Q × Q (ck).
25. K — B 2.	25. P — K 6.
26. B × P.	26. B — B 4 (ck).
27. R — Q 3.	27. Q — B 5 (ck).
28. K — Q 2.	28. Q — R 7 (ck).
29. K — Q 1.	29. Q — Kt 8 (ck).

Black won.

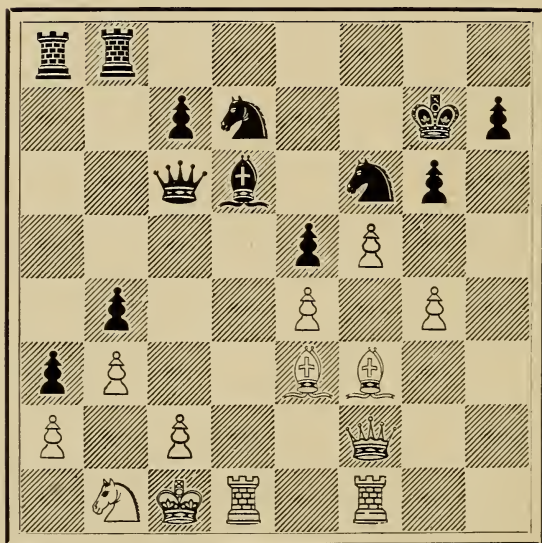
A Tactical Horizon of Class V. is formed by the union of two Logistic Planes. It arises from a strategetic weakness of Class VII.; it is the legitimate outcome of a compound line of manœuvre, and it always is the ultimate situation in a logistic line of operations.

TACTICAL HORIZON.

(Fifth Class.)

FIGURE 78.

HERR HARRWITZ.



PAUL MORPHY.

This position occurred in the eighth game of the match between these masters.

THE PLAY.

MR. MORPHY.	HERR HARRWITZ.
28. P — Kt 5.	28. Kt — Kt 1.
29. P — B 6 (ck).	29. K — R 1.
30. P — B 7.	30. Kt — Q B 4.
31. P × Kt (Q ck).	31. K × Q.
32. B × Kt.	32. B × B.
33. Q — K 2.	33. Q — K 3.
34. Kt — Q 2.	34. K — R 1.
35. B — Kt 4.	35. Q — K 2.
36. Kt — B 3.	36. R — Q 1.
37. P — R 4.	37. R — Q 3.
38. R × R.	38. P × R.
39. Q — B 4.	39. R — K B 1.
40. Q — K 6.	40. B — K 6 (ck).
41. K — Q 1.	41. Q — Q B 2.
42. Kt — Q 2.	42. B — B 5.
43. Kt — B 4.	43. Q — B 4.
44. Q — Q 5.	44. Q × Q (ck).
45. P × Q.	45. R — Q 1.
46. R — B 3.	46. K — Kt 2.
47. P — B 3.	

White won.

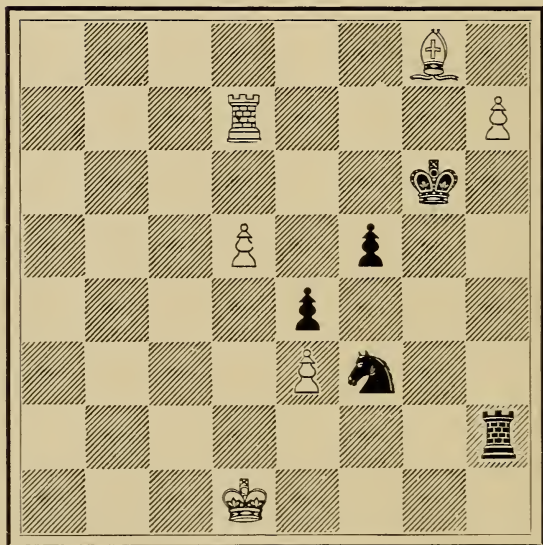
A Tactical Horizon of Class VI. is formed by the union of a Logistic and a Tactical Plane. It arises from a strategetic weakness of Class V.; it is the legitimate outcome of a compound line of manœuvre, and it is the ultimate situation either in a logistic or a tactical line of operations.

TACTICAL HORIZON.

(Sixth Class.)

FIGURE 79.

PAUL MORPHY.



ADOLPH ANDERSEN.

This situation occurred in the tenth game of the match between these masters.

THE PLAY.

ADOLPH ANDERSSSEN.

MR. MORPHY.

- | | |
|--------------|--------------------|
| 61. P × P. | 60. P — K B 5. |
| 62. R — K 7. | 61. P — K 6. |
| 63. R × P. | 62. P — K 7 (ck). |
| 64. K — B 2. | 63. R — R 8 (ck). |
| 65. K moves. | 64. Kt — Q 5 (ck). |
| | 65. Kt × R. |

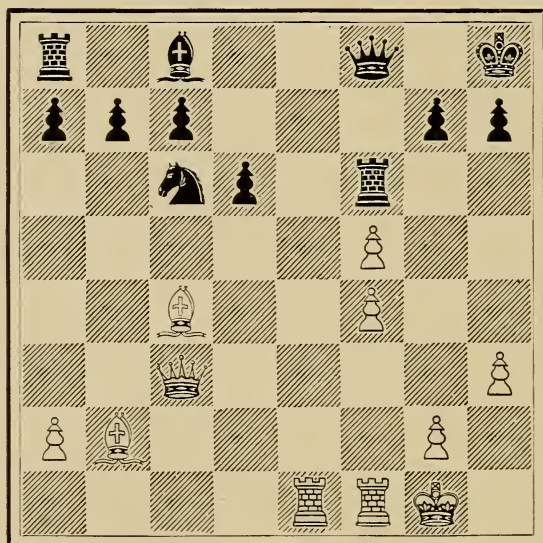
A Tactical Horizon of Class VII. is formed by the union of a Logistic Plane and a Strategic Front. It arises from tactical errors on the part of the opponent; it is the legitimate outcome of a simple line of manœuvre, and properly is preliminary to a complex line of manœuvre.

TACTICAL HORIZON.

(Seventh Class.)

FIGURE 80.

AMATEUR.



PAUL MORPHY.

This position occurred in an exhibition at New Orleans, Mr. Morphy playing six games simultaneously without sight of boards or men.

THE PLAY.

MR. MORPHY.

AMATEUR.

21. R — K 8.

21. Q × R.

22. Q × R.

22. Q — K 2.

23. Q × Kt P (ck).

23. Q × Q.

24. P — B 6.

24. Q × Kt P (ck).

25. K × Q.

25. B × P (ck).

26. K × B.

26. P — K R 4.

27. R — K Kt 1.

White won.

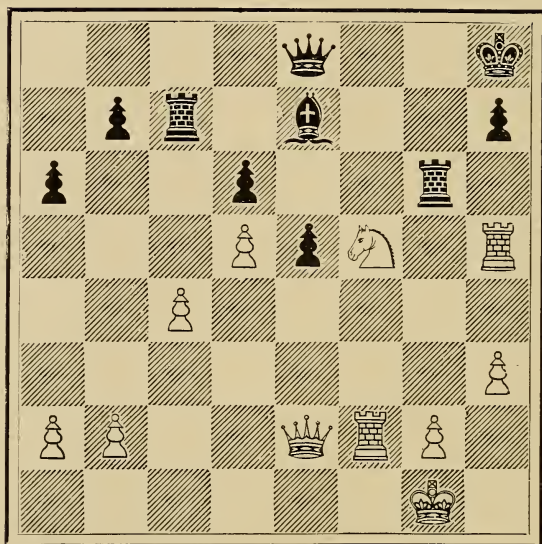
A Tactical Horizon of Class VIII. is formed by the union of two Tactical Planes. It arises from a strategic weakness of Class VI.; it is the legitimate outcome of a compound line of manœuvre, and always is the ultimate situation in a tactical line of operations.

TACTICAL HORIZON.

(Eighth Class.)

FIGURE 81.

HERR HARRWITZ.



PAUL MORPHY.

This position occurred in the fourth game of the match between these masters.

THE PLAY.

MR. MORPHY.

HERR HARRWITZ.

- | | |
|---------------------|---------------|
| 30. P — Q B 5. | 30. R × P. |
| 31. R × P (ck). | 31. K × R. |
| 32. Q — K R 5 (ck). | 32. K — Kt 1. |
| 33. Kt × B (ck). | 33. K — Kt 2. |
| 34. Kt — B 5 (ck). | 34. K — Kt 1. |
| 35. Kt × P. | |

White won.

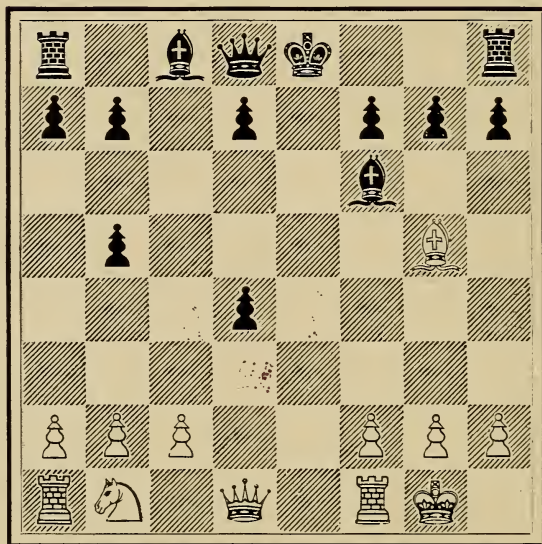
A Tactical Horizon of Class IX. is formed by the union of a Tactical Plane and a Strategic Front. It arises from tactical errors on the part of the opponent ; it is the legitimate outcome of a simple line of manœuvre, and properly is preliminary to a compound line of manœuvre.

TACTICAL HORIZON.

(Ninth Class.)

FIGURE 82.

ADOLPH ANDERSSEN.



PAUL MORPHY.

This position occurred in the third game of the match between these masters.

It is a fine study in the construction of the major front by the right when K file is open.

THE PLAY.

MR. MORPHY.

HERR ANDERSSSEN.

10. R — K 1 (ck).

10. K — B 1.

11. B × B.

11. Q × B.

12. P — Q B 3.

12. P — Q 4.

13. P × P.

13. B — K 3.

14. Kt — B 3.

14. P — Q R 3.

15. R — K 5.

15. R — Q 1.

16. Q — Kt 3.

16. Q — K 2.

17. Q R — K 1.

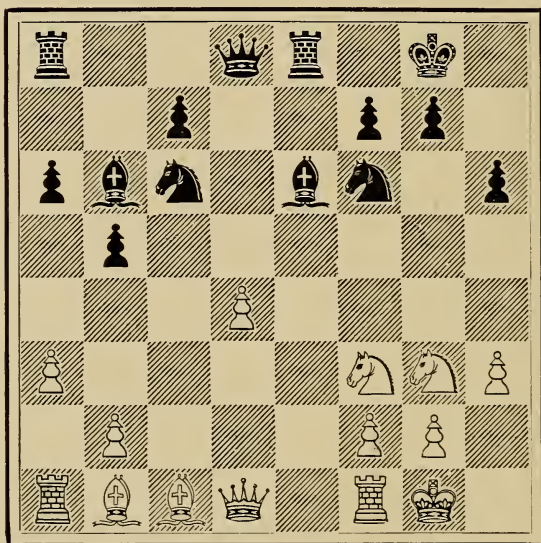
A Tactical Horizon of Class X. is formed by the union of a strategic front with any of the supplementary formations appertaining thereto. It arises from errors in tactics on the part of the opponent; it is the legitimate outcome of a simple line of manœuvre, and properly is preliminary to a complex line of manœuvre.

TACTICAL HORIZON

(Tenth Class.)

FIGURE 83.

PAUL MORPHY.



ADOLPH ANDERSEN.

This situation occurred in the second game of the match between these masters.

THE PLAY.

HERR ANDERSSSEN.

MR. MORPHY.

- | | |
|-------------------|----------------|
| 19. Kt — K B 5. | 18. B — Q B 5. |
| 20. Q × B. | 19. B × R. |
| 21. K Kt — K R 4. | 20. Kt — K 2. |
| 22. Kt × Kt. | 21. Kt × Kt. |
| 23. B × P. | 22. Q — Q 2. |
| 24. Q — Q B 1. | 23. P × B. |
| 25. Q × R P, etc. | 24. B × Q P. |

LOGISTIC RADII.

The student, now being familiar with the mathematical forms of the strategic and the tactical horizons, readily sees that these are united to each other and to the strategic front by verticals, horizontals, diagonals, and obliques, along which latter the kindred pieces move from one point to other points contained within the strategetic horizon.

These radii of movement, as the student already has been informed ("Major Tactics," p. 18), are entirely distinct from radii of offence and of defence; their character is purely logistic, and their direction and extent always is determinate. A logistic radius always is either a vertical, a horizontal, a diagonal, or an oblique, and its extremities always are points of mobilization, development, manœuvre, or operation.

ELEVENTH LAW OF THE ART OF CHESSPLAY.

A Logistic Radius is not valid if it is interrupted by a point of impenetrability, or if its terminus is commanded by an adverse piece.

POINTS OFFENSIVE.

In the formulas of "Grand Tactics," the student perceives how the primary bases of minor tactics are amalgamated into the various minor, major, and grand strategic fronts; and by means of the foregoing explanations and diagrams the amalgamation of the evolutions of Major Tactics into the strategic front is made equally clear.

But in order that the student may thoroughly comprehend that method by which the movements of each kindred piece are harmonized for the perfect amalgamation of the primary bases of minor tactics, the evolutions of major tactics, and the strategic fronts of grand tactics, and by which is made possible a mathematically exact survey of the Strategie Horizon, it first is necessary to explain the two great subdivisions into which the latter is divided, *viz.*:—

Strategie Horizons are of two dimensions.

In its second dimension the Strategie Horizon is limited to the processes of Lesser Logistics (*vide* "Grand Tactics," p. 279), and comprehends nothing outside of Lines of Mobilization and Lines of Development.

The topography of a strategic horizon of the second dimension is as follows:—

- (a) Normal Posts.
- (b) Posts of Mobilization.
- (c) Posts of Development.
- (d) The Strategie Objective.

The Normal Posts are those points which are occupied by the pieces originally (*vide* "Minor Tactics," pp. 51-56).

The Posts of Mobilization are those points to which the pieces are deployed in the construction of a minor front (*vide* "Minor Tactics," pp. 94-169, and "Grand Tactics," pp. 114-158).

Posts of Development are those points to which the pieces are developed in the construction of major and of grand strategic fronts (*vide* "Grand Tactics," pp. 159-275).

The Strategic Objective is that point whose proper occupation is the aim of Lines of Mobilization and of Lines of Development (*vide* "Grand Tactics," pp. 19-22, and 370).

In its first dimension the Strategic Horizon comprises both Lines of Manœuvre and Lines of Operation.

The processes of Greater Logistics are divided into three classes:—

- (a) Minor processes.
- (b) Major processes.
- (c) Grand processes.

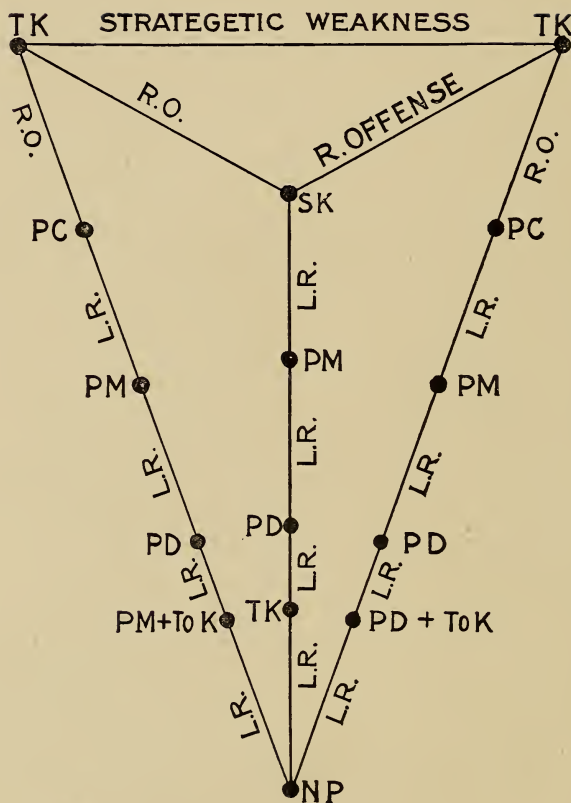
The major processes of Greater Logistics appertain exclusively to Lines of Operation and to compound and complex Lines of Manœuvre.

The minor processes of Greater Logistics appertain exclusively to simple Lines of Manœuvre.

The grand processes of Greater Logistics appertain to that calculation by which in any given situation is determined the true strategic horizon.

Following is the mathematical expression of a strategic horizon, which comprehends a strategic weakness in the adverse position.

FIGURE 84.



- T K = Tactical Key.
- S K = Strategic Key.
- To K = Topographical Key.
- P C = Point of Command.
- P M = Point of Manœuvre.
- P M = Post of Mobilization.
- P D = Post of Development.
- P D = Point of Departure.
- L R = Logistic Radius.
- N P = Normal Post.
- C L M = Compound Line of Manœuvre.
- S L M = Simple Line of Manœuvre.
- X L M = Complex Line of Manœuvre.

The Topography of a Strategie Horizon of the first dimension is as follows:—

- (a) Points of Departure.
- (b) Points of Manœuvre.
- (c) Points of Command.
- (d) The Strategic Key.
- (e) Tactical Keys.
- (f) The Objective Plane.
- (g) The Strategic Horizon.
- (h) The Tactical Horizon.
- (i) The Logistic Horizon.
- (j) Logistic Radii.

A *Point of Departure* is one extremity of that Logistic Radius of which a Point of Manœuvre is the other extremity. It always is occupied by a kindred piece.

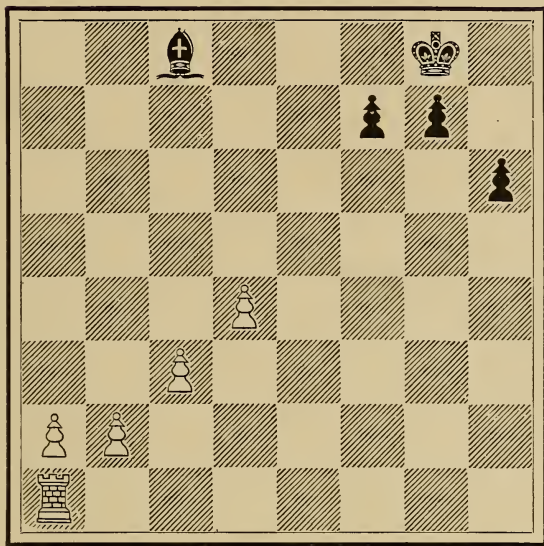
A *Point of Manœuvre* is one extremity of that Logistic Radius of which a Point of Command is the other extremity. It may or may not be occupied either by a kindred piece or by an adverse piece.

A *Point of Command* is one extremity of that Logistic Radius of which a Tactical Key is the other extremity ("Major Tactics," pp. 50–52). It may or may not be occupied either by a kindred or by an adverse piece.

A *Tactical Key* always is either a point of junction ("Major Tactics," p. 68), or a point material ("Major Tactics," p. 42), or that point which when occupied by a given piece, the adverse king is checkmated. It may or may not be occupied by an adverse piece, but never by a kindred piece.

POINTS OF DEPARTURE, OF MANŒUVRE, AND OF
COMMAND.

FIGURE 85.

Black.*White.*

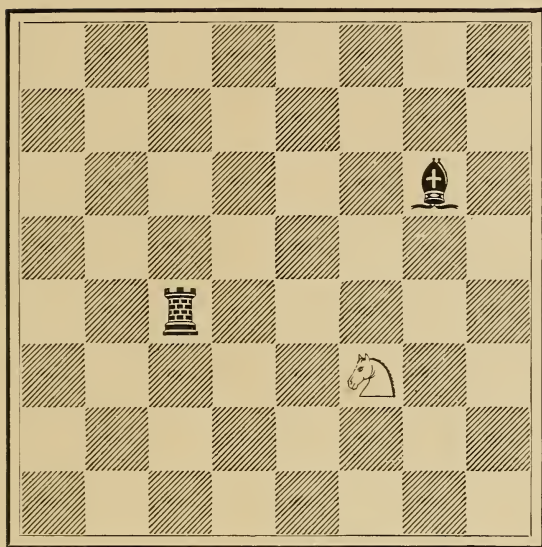
NOTE. — The White Q R 1 is the Point of Departure ; the White K 1 is the Point of Manœuvre, and the White K 8 is the Point of Command against the two Tactical Keys, Black K Kt 1 and Q B 1.

The *Strategic Key* is that vertex of a mathematical figure of which either two points of command, or two tactical keys, or a tactical key and a point of command are the other two vertices (see this volume, p. 88).

The *Strategic Vertices* are those points on the perimeter of that geometric symbol of an integer of chess force of which the strategic key is the centre, and which geometric symbol constitutes, in the given situation, the strategic horizon.

THE STRATEGIC VERTICES.

FIGURE 86.

Black.*White.*

NOTE.—The Strategic Horizon consists of Black's K 4, and the points occupied by the R and B. The Strategic Key is Black's K 4, and this point, together with the Tactical Keys (Black K Kt 3 and Q B 5) constitute the Strategic Vertices.

The *Objective Plane* already has been described ("Minor Tactics," pp. 42-44, and "Grand Tactics," pp. 25 and 82-92).

The *Logistic Horizon* already has been described ("Grand Tactics," p. 19).

The *Tactical Horizon* already has been described (see this volume, p. 127).

The *Strategic Horizon* already has been described (see this volume, p. 106).

The *Logistic Radius* extends from the Point of Departure to any other point offensive ("Major Tactics," pp. 18-23).

LINES OF MANŒUVRE.

Lines of Manœuvre are divided into Simple, Compound, and Complex ("Grand Tactics," pp. 53, 312, 377-386).

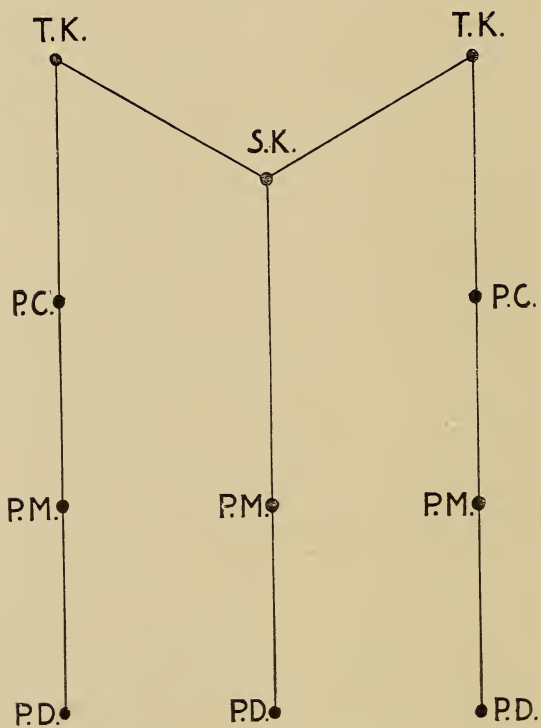
Compound and Complex Lines of Manœuvre are divided into three classes, *viz.* :—

A Compound or a Complex Line of Manœuvre of the first class is composed of eleven points offensive and ten logistic radii, and two of its strategic vertices are tactical keys. It may be mathematically expressed thus:—

COMPOUND OR COMPLEX LINE OF MANGÈUVRE.

(First Class.)

FIGURE 87.



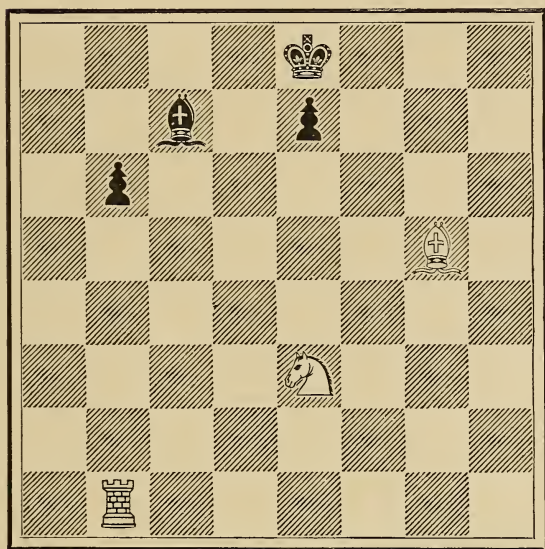
Adapted to the chessboard, this proposition of military art and science may be represented thus:—

COMPOUND OR COMPLEX LINE OF MANŒUVRE.

(First Class.)

FIGURE 88.

Black.



White.

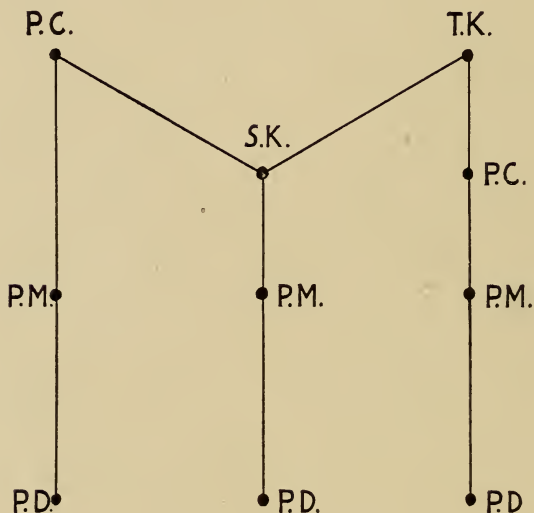
NOTE. — The White Kt will occupy the strategic key Q 5, and the tactical keys, Black Q Kt 3 and K 2, will be simultaneously attacked by a superior force.

A Compound or a Complex Line of Manœuvre of the Second Class is composed of ten points offensive and nine logistic radii, and one of the strategic vertices always is a tactical key, and the other always is a point of command. It may be mathematically expressed as follows : —

COMPOUND OR COMPLEX LINE OF MANŒUVRE.

(Second Class.)

FIGURE 89.



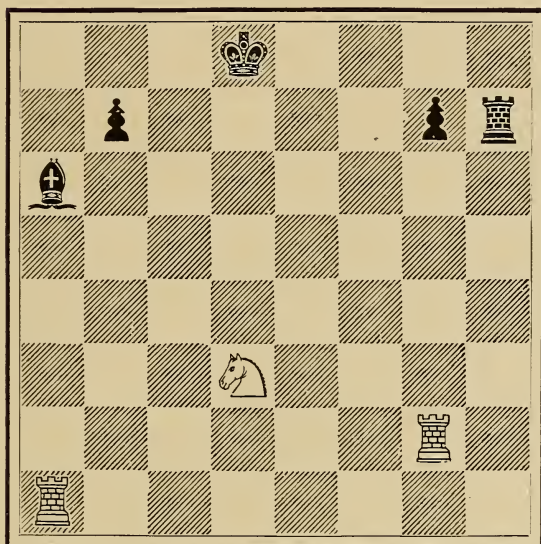
Adapted to the chessboard, this proposition of military art and science may be represented thus : —

COMPOUND OR COMPLEX LINE OF MANŒUVRE.

(Second Class.)

FIGURE 90.

Black.



White.

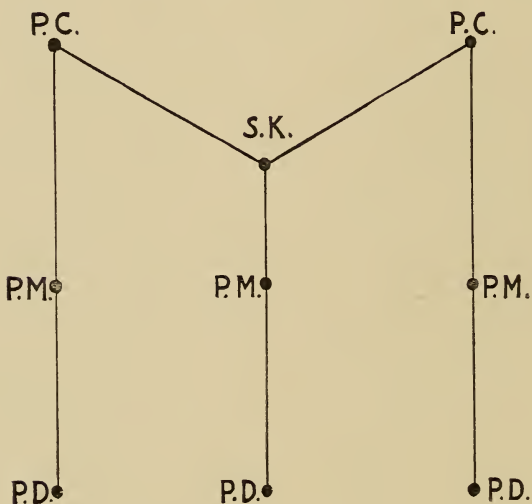
NOTE. — The White Kt will occupy the strategic key (White Q B 5), attacking simultaneously the tactical key (Black Q R 3) and the point of command (Black's K 3).

A Compound or a Complex Line of Manœuvre of the third class is composed of nine points offensive and eight logistic radii, and both of its strategic vertices are points of command. It may be mathematically expressed thus:—

COMPOUND OR COMPLEX LINE OF MANŒUVRE.

(Third Class.)

FIGURE 91.



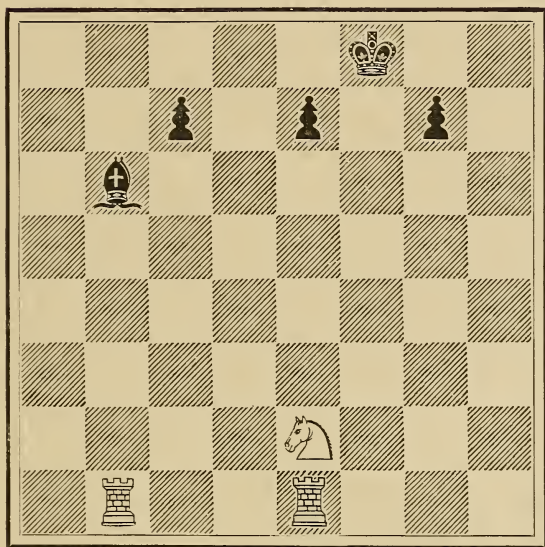
Adapted to the chessboard, this proposition of military art and science may be represented thus : —

COMPOUND OR COMPLEX LINE OF MANŒUVRE.

(Third Class.)

FIGURE 92.

Black.



White.

NOTE. — The White Kt will occupy the strategic key (White K B 4), and threaten to occupy one of the points of command (White Q 5 and Kt 6).

LINES OF OPERATION.

Lines of Operation are the natural outgrowth of Compound and of Complex Lines of Manœuvre ("Grand Tactics," pp. 57, 318-337).

Every line of manœuvre contemplates the bringing about of a position in which the occupation of two strategic vertices by a kindred force is assured; and when this position is brought about, the line of manœuvre becomes transformed into a line of operations.

The process whereby this transformation is brought about varies in each of the three classes of compound and complex lines of manœuvre; but in each and every case it is contingent upon the inadequacy of the defensive resources of the strategic vertices.

The defensive resources of the strategic vertices are expressed by numerical exponents, and the quantity of their defensive powers is denoted by letters, *viz.* : —

(*a*) Signifies that the strategic vertices contained in the given compound or complex line of manœuvre are not supported by any kindred piece. This situation is designated thus : —

FORMULA FOR LINE OF MANŒUVRE.

$Cx\ 1\ a,$ $Cx\ 2\ a,$ or $Cx\ 3\ a.$

In this position, if the corps of the centre can occupy the strategic key and the enemy cannot defend both strategic vertices in one move, then the line of ma-

nœuvre may be transformed into a line of operations, and the resulting situation is expressed thus : —

FORMULA FOR LINE OF OPERATION.

$$Cx\ 1\ a = (T\ K^0 + T\ K^0)\ S\ K^1 = L\ O.$$

$$Cx\ 2\ a = (T\ K^0 + P\ C^0)\ S\ K^1 = L\ O.$$

$$Cx\ 3\ a = (P\ C^0 + P\ C^0)\ S\ K^1 = L\ O.$$

The logistic operation in all the foregoing situations is limited to two marches by the corps of the centre ; *i. e.*, one march from the Point of Departure to the Point of Manœuvre, and one march from the Point of Manœuvre to the Strategic Key. This logistic operation is expressed thus : —

FORMULA FOR LOGISTIC RADII.

$$C\ C^2.$$

(*b*) This letter signifies that one of the strategic vertices contained in the given compound or complex line of manœuvre is supported by a kindred piece, but that the other vertex is not supported by a kindred piece. This situation is designated thus : —

FORMULA FOR LINE OF MANŒUVRE.

$$Cx\ 1\ b, Cx\ 2\ b, \text{ or } Cx\ 3\ b.$$

In this position, if the corps of the centre can occupy the strategic key, while the corps of the right or of the left occupies a point of command against that tactical key, or a point of manœuvre against that point of command defended by the enemy, and if the enemy cannot defend both of the strategic vertices in one move, then the line of manœuvre may be transformed into a line of operations, and the resulting situation is expressed thus :

FORMULA FOR LINE OF OPERATION.

$$Cx1b = (TK^1 + TK^0)(SK^1 + PC^1) = LO.$$

$$Cx2b = (TK^1 + PC^0)(SK^1 + PC^1) = LO.$$

$$Cx3b = (PC^1 + PC^0)(SK^1 + PC^1) = LO.$$

The normal logistic movement in the first two of the foregoing situations is limited to four marches; *i. e.*, two by the corps of the centre, one from the point of departure to the point of manœuvre, and one from the point of manœuvre to the strategic key, and two by the corps of the right or of the left, one from the point of departure to the point of manœuvre, and one from the point of manœuvre to the point of command. But in the *Cx3a* the total number of marches is only three, as the flanking corps has but one march to make; *i. e.*, from the point of departure to the point of manœuvre, from which latter point it attacks the point of command. This logistic movement is expressed thus:—

FORMULA FOR LOGISTIC RADII.

$$Cx1b \text{ and } Cx2b = CC^2 + FC^2.$$

$$Cx3b = CC^2 + FC^1.$$

(*c*) This letter signifies that both of the strategic vertices contained in a given line of manœuvre are supported by kindred pieces. The situation is denoted thus:—

FORMULA FOR LINE OF MANŒUVRE.

$$Cx1c, Cx2c, \text{ or } Cx3c.$$

In this situation, if the corps of the centre can occupy the strategic key, while the corps of the right and left occupy the points of command against their respective tactical keys, or points of manœuvre against their re-

spective points of command, and if the enemy cannot defend both of the strategic vertices in one move, then the line of manœuvre may be transformed into a line of operations, and the resulting situation is expressed thus :

FORMULA FOR LINE OF OPERATION.

$$Cx1c = (TK^1 + TK^1) (SK^1 + PC^1 + PC^1) = LO.$$

$$Cx2c = (TK^1 + PC^1) (SK^1 + PC^1 + PC^1) = LO.$$

$$Cx3c = (PC^1 + PC^1) (SK^1 + PC^1 + PC^1) = LO.$$

The normal logistic movement in the $Cx1c$ is the maximum ; it consists of six marches : two by the corps of the centre, *i. e.*, one from the point of departure to the point of manœuvre, and one from the point of manœuvre to the strategic key ; two by the corps of the right, *i. e.*, one from the point of departure to the point of manœuvre, and one from the point of manœuvre to the point of command ; and lastly, two marches by the corps of the left, *i. e.*, one from the point of departure to the point of manœuvre, and one from the point of manœuvre to the point of command.

FORMULA FOR LOGISTIC RADII.

$$CC^2 + CR^2 + CL^2 = 6.$$

The normal logistic movement in the $Cx2c$ is but one march shorter than that of the $Cx1c$, and exceeds all other normal logistic movements. The corps of the centre and that flanking corps which is directed against the tactical key each have two marches to make, but that flanking corps which is directed against the point of command only has to march from the point of departure to the point of manœuvre, making five marches in all.

FORMULA FOR LOGISTIC RADII.

$$CC^2 + CR^2 + CL^1 = 5.$$

The normal logistic movement in the *Cx3c* consists of two marches by the corps of the centre from the point of departure, *via* the point of manœuvre to the strategic key, and one march by each of the corps of the right and the left from the point of departure to the point of manœuvre.

FORMULA FOR LOGISTIC RADII.

$$C C^2 + C R^1 + C L^1 = 4.$$

Thus the student of chess, of mathematics, or of military science readily will see the validity of the following :

TWELFTH LAW OF THE ART OF CHESSPLAY.

I. *A compound or a complex line of manœuvre is transformed into a line of operations whenever the sum of the exponents of the corps offensive exceeds the sum of the exponents of the defensive radii which appertain to the strategic vertices ; and*

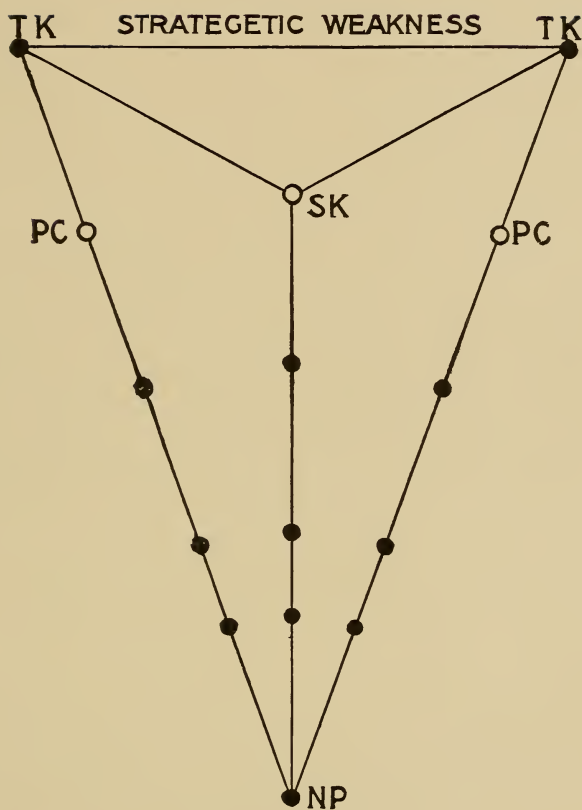
II. *A projected logistic movement on a line of operation is valid whenever the number of marches to be made by the corps offensive is less than the number of marches required to be made by the corps defensive, in order that the sum of defensive exponents may equal the sum of the exponents of the corps offensive.*

There are four mathematical symbols typical of lines of operation, *viz.* :—

LINES OF OPERATION.

(a.)

FIGURE 93.



In this situation the line of operations is established for the reason that the corps offensive occupy the strategic key and both points of command.

The corps offensive *having the move* win by simultaneously attacking, from the strategic key and either point of command, the common tactical key, which, not having the right to play, is immovable, and consequently is unable to avoid this attack, and being the lesser force is unable to repel it, according to the basic law of the science of Chess Strategetics ("Grand Tactics," p. 3).

The corps offensive also win *without the move*, for, a strategic weakness existing, neither of the adverse forces are able to support each other in a single move.

Consequently, while, by means of the right to play, the opponent may retire one of his exposed pieces, he obviously is unable simultaneously either to defend or to vacate both tactical keys. Hence, that exposed force remaining immovable at the close of the opponent's right to play is lost according to the preceding demonstration.

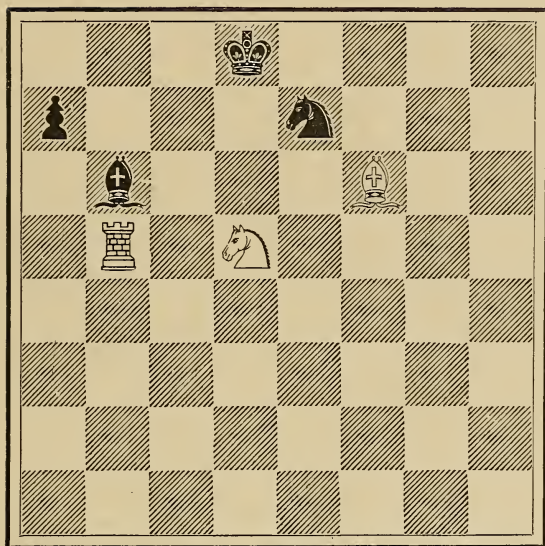
Adapted to the chessboard, this proposition of military art and science may be represented thus : —

LINE OF OPERATIONS.

(a.)

FIGURE 94.

Black.



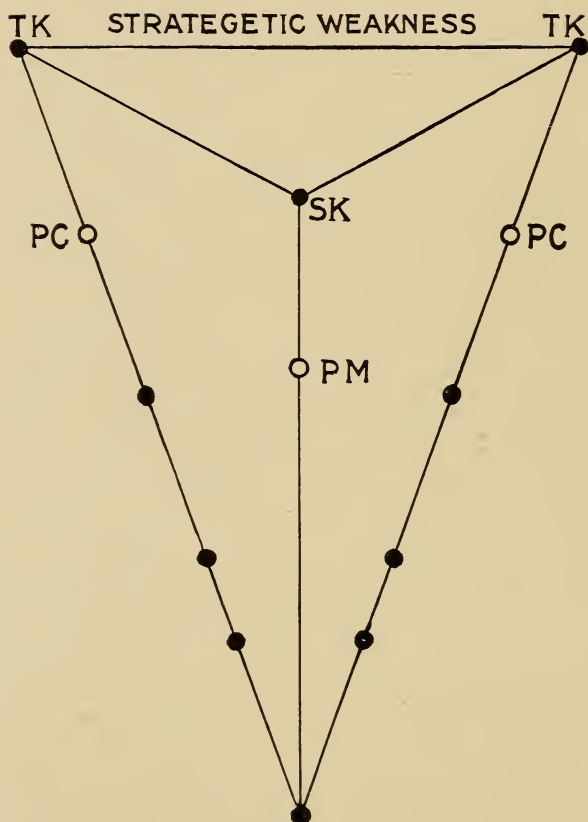
White.

NOTE. — The Black Kt and B occupy tactical keys ; the White B and R occupy points of command, and the strategic key is occupied by the White Kt. White wins either with or without the move.

LINE OF OPERATIONS.

(b.)

FIGURE 95.



In this situation the corps offensive *having the move* win by occupying the strategic key with the corps of the centre. Inasmuch as the kindred corps of the right and of the left are in possession of both points of command, the situation after the capture of the strategic key is identical to the final situation in the preceding diagram.

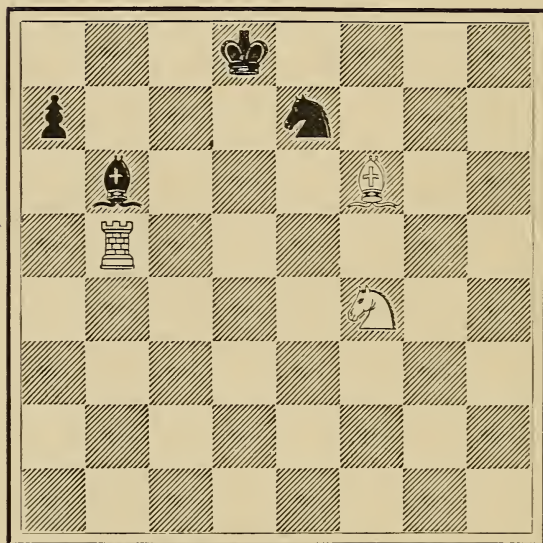
Adapted to the chessboard, this proposition of military art and science may be represented thus : —

LINE OF OPERATIONS.

(b.)

FIGURE 96.

Black.



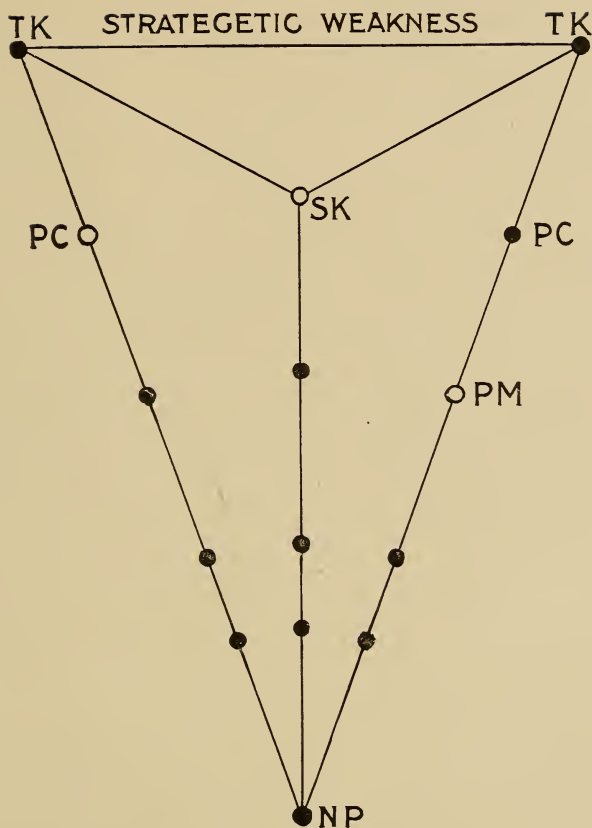
White.

NOTE. — The Black Kt and B occupy tactical keys; the White Kt occupies a point of manœuvre. The strategic key is White's Q 5. White having the move will win.

LINE OF OPERATIONS.

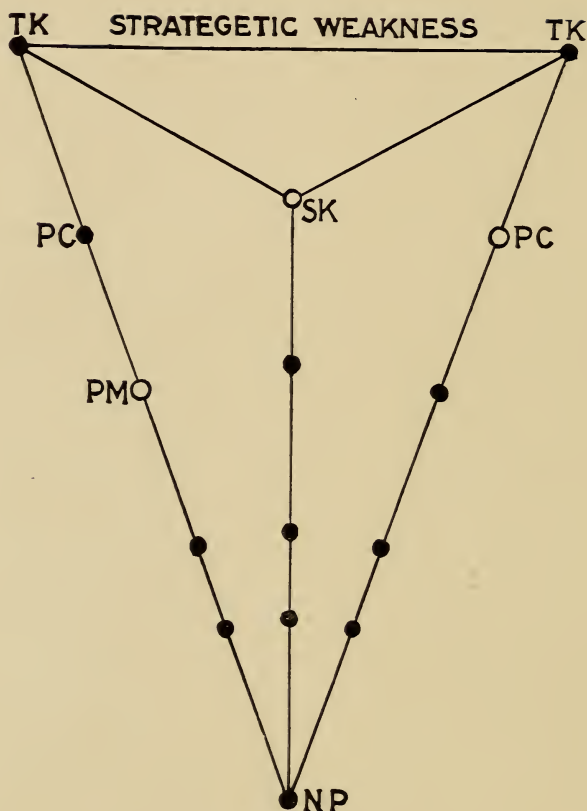
(c.)

FIGURE 97.



Obviously the corps offensive *having the move* win by occupying the right point of command with the corps of the right, the resultant situation being identical to the foregoing situations.

FIGURE 98.



The corps offensive *having the move* win in this position by occupying the left point of command with the corps of the left. The student will observe that no line of operations exists in the last three situations if the corps offensive have not the move.

PROCESSES OF GREATER LOGISTICS
(MINOR).

PROCESSES OF GREATER LOGISTICS (MINOR).

The minor processes of Greater Logistics are contained exclusively in simple lines of manœuvre. These processes contemplate neither the gain nor the defence of material, but their sole object always is to divide up the opposing force and especially to intensify and perpetuate that unscientific isolation of the adverse pieces which exists at the beginning of every game of chess.

These processes always must be combined with the deployments of Lines of Mobilization, in order that the unscientific isolation of the kindred pieces which exists at the beginning of every game of chess may be eliminated, at the same time that the isolation of the adverse pieces is perpetuated.

This idea is fundamental and underlies all the earlier moves of the chesspieces. Upon it all *débuts* which are true and valid are based, and no analysis is worthy of consideration whose every move does not conform to this basic truth.

THIRTEENTH LAW OF THE ART OF CHESSPLAY.

Every movement on a Simple Line of Manœuvre should be a deployment or a development, and the logistic radius should have its origin in a normal post or in a post of mobilization, and its terminus in a topographical key.

If the student will set up the pieces and inspect the normal position, he will observe that with the exception

of the knights and the pawns, all of the chesspieces are immovable, and that many of the latter must remain thus immovable for a number of moves.

In short, it readily may be perceived that before the K R can be brought to K B 1, that the K Kt and the K B must be moved, and that before the Q R can be brought to K 1, that the Q Kt, the Q B, the Q, and the K must be moved.

Obviously, then, these two pieces (K R and Q R) are isolated from each other, and eight moves must elapse before they can be brought into communication at their proper posts in the primary base.

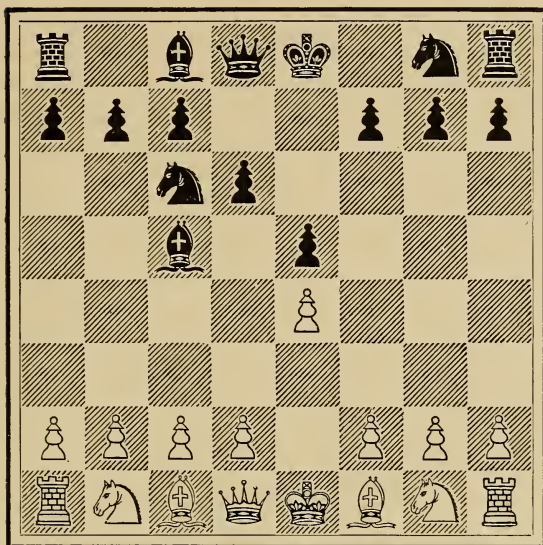
Again, it easily is discernible that the King is unscientifically posted at K 1, inasmuch as he not only is dangerously exposed, but he constitutes a point of impenetrability on the logistic radii of his own pieces and thereby prevents the proper deployment and co-operation of the latter in the formation of the strategic front.

Furthermore, it is easy to see that this isolation of the K from the two powerful pieces of the right and the left wings respectively must, if perpetuated, result in a serious, if not a fatal, weakness in the general position.

Understanding and accepting this premise, the student easily will see that after the move of 1. P — K 4 by White, the best and most quickly executed series of deployments possible to Black are 1. P — K 4, 2. Kt — Q B 3, 3. K B — B 4, and 4. P — Q 3; whereupon results the following situation: —

FIGURE 99.

Black.



White.

The student now will observe that, these four deployments having been completed, Black will have no difficulty in making what further deployments are needed, *viz.* (K Kt — B 3 and Castles K R), in order to concentrate all his originally scattered pieces into one united mass, whose communications in all respects are free and protected.

This, then, necessarily, is the fundamental opening formation for Black, and, having established it, he has every reason to await the outcome of the game with confidence, for there is no apparent hope of victory for White, provided the subsequent play be equally good on

both sides. The reason why this is so is that White has frittered away his inestimable advantage of the initiative; *i. e.*, instead of intensifying the isolation of the black pieces, he has voluntarily and as the direct outcome of a series of unscientific moves, permitted Black to make a series of scientific moves and thereby to establish a scientific position, which, although inferior (being by the right refused), still is powerful enough to withstand any attack which White may bring to bear against it, and not improbably, on account of the unscientific processes of White, of becoming by comparison the superior position and one possessing the germ of legitimate victory.

Upon contemplating this black situation, the student will note two facts: (*a*) that the Black K B was deployed at Q B 4 before the Black Q P was moved, and that, as the result of this deployment of the Black K B (*b*), the communication of the Black K wing with the centre is assured, inasmuch as the Black K Kt can readily be deployed to its proper post at K B 3.

A little thought will convince the student that the single deployment of K B — B 4 has vastly relieved Black's original situation; inasmuch as it not only has brought this piece into a commanding position from whence it attacks directly the White K B P (which prior to castling K R is the vulnerable point in the King's position), but also, by removing a point of impenetrability (K B 1) from the logistic radius of the Black K, that it has insured him the privilege of castling K R and the union of the black centre and K wing.

Hence, it needs no argument to prove that the deployment of K B at Q B 4 is of the utmost consequence to Black, and that a prime object of White's simple line of manœuvre should be to make *this deployment of the Black K B at Q B 4 impossible.*

The student next will observe that the deployment of the Black Q P at Q 3 absolutely perfects this initial black formation, and that this deployment is second in importance only to the deployment of the Black K B at Q B 4.

The reason of this is that after the move of P — Q 3 the point K 4 is supported, and consequently not only is the Black K P securely defended, but the White K P is prevented from occupying the vertex of a major right oblique, and also prevented from either dislodging the Black K Kt from K B 3, or from making it impossible for this piece to occupy the last-mentioned point. Just here, it may be well to explain that the Black Q P is never properly played to Q 4, whenever the opponent can establish a valid major strategic front by occupying White K 5 with a pawn or with a piece.

Again, after K B — B 4 and P — Q 3, it is obvious that the Black Q B will deploy without hindrance, and that the communications of Black's right, centre, and left will become free and open, and the mobilization of his originally isolated masses now easily effected.

Therefore, again it is beyond dispute that after 1. P — K 4, a prime object of White's Simple Line of Manœuvre should be *to prevent the deployment of the Black Q P at Q 3.*

The student now will observe that the position of the Black K at K 1 prevents anything like a scientific massing of the black pieces and that, in short, it is imperative that the Black K castle at the earliest practicable moment and usually on the K side. In any event it obviously is imperative that the point of impenetrability formed by the Black King be eliminated from the logistic radius of the Black K R and Q R.

Therefore, it also is beyond dispute that a prime

object of White's simple line of manœuvre should be *to prevent the Black K from castling.*

Again, the student will notice that the Black K B P at K B 2 is the peculiarly weak spot in the black position prior to castling K R, inasmuch as it is supported only by the Black K, and consequently if it be captured that the Black K after taking the adverse piece deprives himself of the privilege of castling.

Hence, it equally is beyond dispute that a primary object of White's simple line of manœuvre should be *to attack the Black K B P at K B 2 whenever this P is left supported only by the Black K.*

Finally, the student will easily discern that after 1. P — K 4 by White and 1. P — K 4 by Black, a strategic horizon exists for White, the two tactical keys of which are Black K B 2 and K 4, and the strategic key being White K R 5. The white corps of the centre is the Q, and the white point Q 1 is thus raised from merely a normal post to a point of manœuvre. But the student readily observes that a line of manœuvre against this strategic horizon is not valid, inasmuch as it is not based on a strategetic weakness for the reason that the Black Q by deploying at K 2 or K B 3 *defends both tactical keys in a single move.* Furthermore, the student will observe that by deploying the Black K Kt at K B 3 the occupation of the strategic key K R 5 by the White Q is prevented. But that the occupation of this point K R 5 by the White Q is a serious menace to Black both before and after castling K R, is manifest, and equally so that it is of the utmost importance that the Black K Kt maintains its post of mobilization at K B 3, or that it keep in easy communication with that point, in order to prevent the occupation of, or to dislodge the White Q from the White point K R 5.

Hence, it also is beyond dispute that a prime object of White's simple line of manœuvre should be *to prevent the posting of the Black K Kt at K B 3; or, to dislodge the Black K Kt as soon as possible from this post whenever the objective plane is located on the right or on the centre.*

These facts being established, it is not difficult to determine, by the process of logical deduction, the proper deployments for White and for Black which appertain to simple lines of manœuvre.

Reverting to the initial move of White, *i. e.*, 1. P — K 4, it is first all-important that the student understand and accept once and for all the basic truth which underlies all true processes appertaining to Black, *viz.*:—

Black never should adopt the Left Oblique Refused after White has initiated the open game by 1. P — K 4.

The reason for this is that, in order to prevent being overwhelmed by White's Major Right Oblique, Black will be obliged to play prematurely P — Q 4 in the opening, and thus to leave his K 4 unsupported by a black pawn at Q 3, which will permit White again to establish the Major Right Oblique by Kt — K 5.

Furthermore, the obverse of this equally is true, and the student will understand, once and for all, that:

Whenever Black adopts the close game, White never should permit the exchange or the advance of the Black K P, but should confine it immovable at Black's K 3.

Thus, by memorizing these few and simple basic truths, the student readily will grasp the true processes which apply to what is termed the opening of a game of chess. Furthermore, he readily will note the absurdities of the books of so-called "chess analysis," most of which are manufactured by fourth and fifth class chess-players, and all of which are destitute of anything in the

nature of a scientific foundation. For it is easy to see that, such books being governed by no system of play, they necessarily and admittedly are in a continual "state of transition;" *i. e.*, what is true to-day is false to-morrow, and *vice versa*. Finally, it is an open secret that the chess-master puts no reliance whatever in such books of analysis, but makes his own analysis as he needs it.

Thus, White opens the game by 1. P — K 4, for the reason that he at once establishes the open game and dictates Black's reply by threatening to play 2. P — Q 4, which would insure to White a major front, either by the right by P — K 5, or to the left by P — Q 5, accordingly as Black's formations should make most advisable.

White, of course, on his initial move can play 1. P — Q 4, and 1. Kt — K B 3; but to these Black's best reply is 1. P — K B 4, by which reply Black will prevent the deployment of the White K P at K 4 and establish the Close Primary Base 3 A (C P B 3 A, see "Minor Tactics," pp. 166-168), having the preferable position and a strong counter-attack against the White K.

In reply to White's moves of 1. P — Q 4 and 1. Kt — K B 3, Black safely may reply 1. P — Q 4, but the reply of 1. P — K B 4 is preferable, for the reason that in the latter instance Black's strategic front extends towards the White K, and his advantage in position arises from the fact that White's strategic front will not extend towards the Black K, so long as Black can prevent the exchange or the advance to K 4 of the White K P, which Black should hold immovable on White's K 3.

Any initial move made by White other than 1. P — K 4 and 1. Kt — K B 3 always should be met by Black with 1. P — K 4. The reason of this is that mathematically *White should win the game by the advantage of the first*

move. This advantage, derived from the first move, consists in the ability of White to establish his minor front on that great central diagonal extended towards that side of the board on which Black will castle.

Consequently, Black having originally a lost game, can win only by becoming transformed into White, so to speak; *i. e.*, by establishing his pieces on the great central diagonal leading towards the White King, and preventing White from establishing his pieces on the great central diagonal leading toward the Black King.

In either case, it is obvious that the opposing king's pawns must be posted at their fourth squares, and that he who can post his own *K P* at *K 4*, and prevent the opponent from so doing, thereby attains a decided advantage.

Thus, it follows that all initial moves except 1. *P — K 4* on the part of White are inferior for the reason that by no other move can White be certain of establishing his strategic front upon the strategetic centre.

TOPOGRAPHICAL KEYS.

As the student readily perceives, it should be the object of every movement made on a simple line of manœuvre on the part of White to deploy a kindred piece and, moreover, to deploy the given piece to that point whereat it prevents the deployment of the Black K B at Q B 4, or of the Black Q P at Q 3, or of the Black K Kt at K B 3, or to prevent the Black K from castling, or to capture the Black K B P at K B 2.

Whenever such point exists, it is termed in this theory a *Topographical Key*.

Topographical Keys are divided into three classes, viz. : —

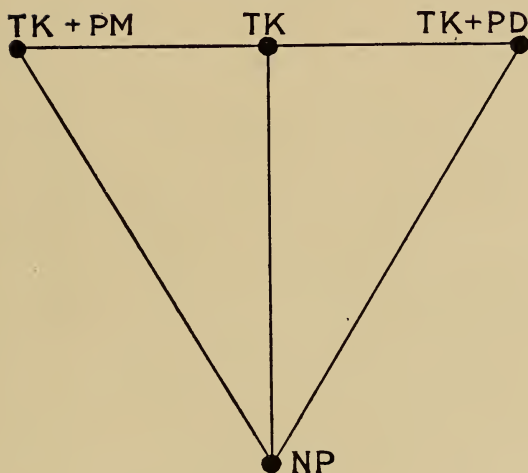
I. Those which are combined with a Post of Mobilization.

II. Those which are combined with a Post of Development.

III. Those which are not combined either with a Post of Mobilization or with a Post of Development.

SIMPLE LINE OF MANŒUVRE.

FIGURE 100.



NP = Normal Post.

TK = Topographical Key.

TK + PM = Topographical Key + Post of Mobilization.

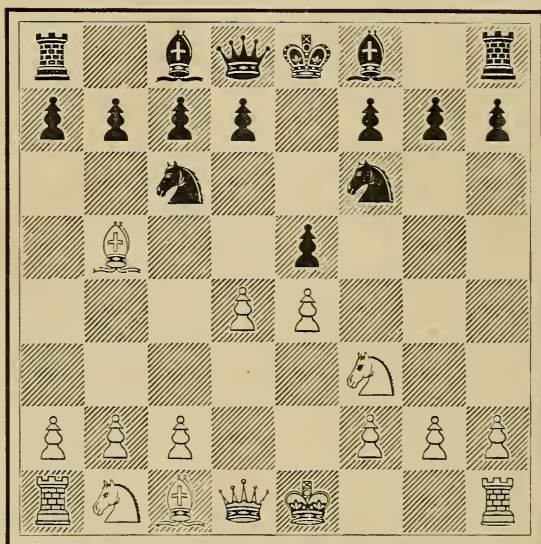
TK + PD = Topographical Key + Post of Development.

Adapted to the chessboard, this proposition of military art and science may be expressed thus : —

TOPOGRAPHICAL KEY COMBINING POST OF
MOBILIZATION.

FIGURE 101.

Black.



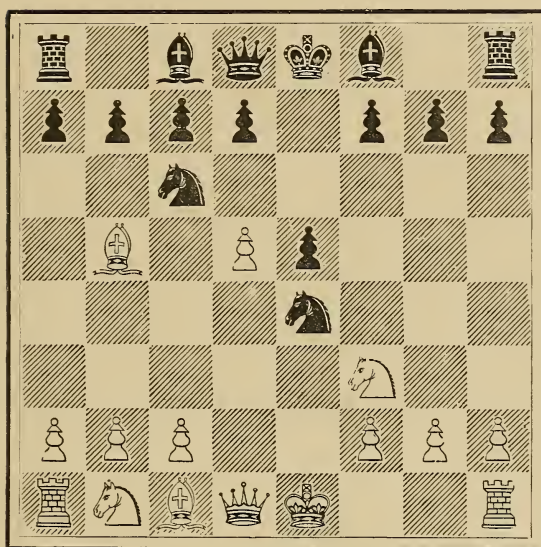
White.

NOTE. — White played on his last move P to Q 4, whereby he deployed his Q P to its proper post in the strategic front, and prevented Black from playing K B — Q B 4.

TOPOGRAPHICAL KEY COMBINING POST OF
DEVELOPMENT.

FIGURE 102.

Black.



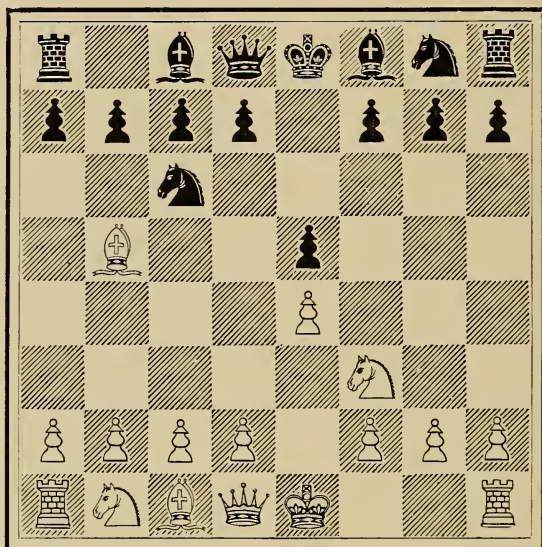
White.

NOTE. — White played on his last move P. to Q 5, developing the major front by the left against the cramped Black centre.

TOPOGRAPHICAL KEY NOT COMBINING EITHER A POST
OF MOBILIZATION OR A POST OF DEVELOPMENT.

FIGURE 103.

Black.



White.

NOTE — White played on his last move K B to Q Kt 5. This move is played to prevent Black from playing 3. K B — Q B 4, and is made without regard to the Line of Mobilization or of Development.

GRAND PROCESSES OF GREATER LOGISTICS.

The student now arrives at the crucial phase of chessic art and science as interpreted in this theory.

The first three books of this series—in which the knowledge derived from the experience of the greater chessmasters is classified and systematically arranged for the purpose of presenting a complete and concrete system of chessplay for the benefit of the student; together with the present volume, which exploits the method whereby this theory is applied in practice—would perhaps be written in vain, did the author at this point lay down his pen.

To the layman, whether in war or in chess, this fact well may seem inconceivable, and he properly may hold that the value of a completed science and of an art whose processes are formulated, is indisputable. As an abstract proposition this is true, and it literally would be true if all men were possessed of an understanding of art and of science in equal proportions.

But it is matter of common knowledge that the man who merely is a theorist, and the man who merely is an artist, is to be found in droves, so to speak. The first is a worshipper of abstract propositions and falls in prostrate adoration before the shrine of scientific principle; the latter, heedless of cause and effect and enamoured of tangible and material details, revels in the complexities of the present moment, without regard for the thing which ought to be, or perhaps may yet be.

Both of these people have the utmost contempt for each other's methods. The one despises the lack of system in the other, and the latter mocks at what seems to him but egotistical pedantry.

In the various walks of life, as on the chessboard and on the battlefield, the mere artist wins against the mere theorist. The reason for this is that the first knows more than he himself is aware of, — much more than he can put into language, and vastly more than the mere theorist gives him credit for knowing. Furthermore, he possesses *the ability to utilize* all the knowledge that he possesses.

On the other hand, the mere theorist usually lacks all understanding of the art of applying his vast fund of knowledge, and, in addition, he is handicapped by a fallacy which is world-wide and common to all theorists, *viz.* : —

The theorist thinks the true use of knowledge is to *bring about an ideal condition*, in order to secure an advantage; when, as a matter of fact, *the true use of knowledge is to derive all possible advantage from the condition which exists*. This is the great secret which governs the application of knowledge to practical uses.

Hence, singularly enough, it is the artist, the tactician, the contemner of principle, who *unconsciously* bases his processes upon the fundamental law which governs the practical utilization of knowledge; while it is the mere theorist, the stickler for order, system, and the infallibility of cause and effect, who, *ignorant of the art*, incessantly and unwittingly violates that basic law upon which the system he so idolizes is founded.

This simple fact explains many seeming incongruities; it shows why the mere artist, the man of action, is a far more potent factor in the world than the mere

theorist or man of learning. It shows that science *per se* is of far less avail than is art *per se* and justifies the proverb of the ancient Persian:—

“A pound of knowledge requires for its application ten pounds of common sense.”

But there is another type of man who at long intervals becomes manifest in the flesh, and before whom the mere scientist and the mere artist are as nought. The world, for want of a better name, sees fit to term such a character a “genius,” to regard him as “inspired” in some particular way, and assumes that his powers of mind are “supernatural.” Such a man was Morphy in chess, and Epaminondas, Alexander, Hannibal, Cæsar, Gustavus Adolphus, Turenne, Prince Eugene, Frederic II., Washington, Napoleon, and Von Moltke in war. A character who thus combines in himself both the erudition of the theorist and the discrimination of the artist is so rare, both in chess and in war, that the former has produced but a single and the latter but eleven examples, out of the billions who have populated the earth during the last twenty-four centuries.

It is very easy and probably very complimentary to term such a character a “genius,” and it unquestionably saves much mental labor to assume that his superior understanding is “supernatural.”

Nevertheless, it is a singular circumstance that the minds of these great men invariably have run in similar channels, and that their processes were so nearly identical that it has seemed possible to the student of war, of chess, and of mathematics to reduce these processes to a system, and thereby to show that the only difference between these “supernatural” processes and the ordinary processes of nature lies in the mere fact that the former are not understood.

It is the history of chess and of war that men who were extremely skilful in the art were able to understand but little of the science, and, *vice versa*, that men profoundly erudite in matters relating to the science were able to comprehend but little of the art. That is, while these men had the same facilities and the same opportunities, neither could comprehend the secret of combining both the art and the science, and ultimately each would abandon the one branch and devote himself exclusively to the other. Why this peculiar fact is so, we do not know; but that it is so, is established by the history of mankind from the beginning of the world, and for want of a better reason its cause is ascribed to the difference in temperament among men.

Hence, the mere tactician and the mere theorist have all sooner or later found themselves in exactly the situation that the student of these volumes finds himself at the present moment. Past masters either in the knowledge of the game or in the art of utilizing what knowledge they were possessed of, nevertheless, they were forced to admit that there was a limit beyond which their processes did not apply, and where neither the theorist nor the tactician could do more than grope; and, furthermore, that it was when lost in this impenetrable maze that they were routed, horse, foot, and dragoons by the so-called "genius" in the person of Morphy or Napoleon; who for some reason or other appeared to have no difficulty whatever in finding his way about in what to his victims was a night of Stygian blackness.

Thus it appears that in the last analysis the term "genius," as applied to the greater masters of chess and of war, is used by the world at large to designate men

who were alike superlatively equipped both in the theory and in the practice of their respective professions.

Furthermore, it appears that the "genius" possessed by these great characters consisted in the fact that they knew how to bridge that vast impassable gulf which separates the tactician and the theorist, and to produce, by a method unknown to the mere artist or to the mere scientist, *the perfect co-operation of theory and practice.*

Obviously, then, perfect comprehension of a science, or perfect comprehension of an art, is not enough to make of any man a "genius." In addition to this he also must perfectly comprehend that *method of calculation* whereby in any situation the laws of the art and the principles of the science may be reduced to mathematical harmony, in order that these may perfectly co-operate for the attainment of a mutually desired end.

It therefore is evident that the science of chess strategics *culminates in that calculation* whereby the principles upon which the art of chessplay is founded are correctly interpreted and properly applied to any given situation on the chessboard.

By his understanding of the minor and the major processes of greater logistics the student is enabled to treat correctly any chessic condition which may be comprehended in *a single strategetic horizon*. But when two or more strategetic horizons are contained at the same time in a given topographical zone, it is imperative that the student be equipped with knowledge which will enable him to detect the *true* strategetic horizon and to describe the *true* course of procedure; *i. e.*, in the vernacular of the game, "*to pick out the best move.*"

The student, therefore, must clearly understand that there is a difference between Science — the knowledge of

what to do — and Art — the understanding of how to do it ; and that this difference is all the difference in the world.

If, in a game of chess, *the opposing force had no power of movement*, all chess knowledge would be limited to Lines of Mobilization and Lines of Development, and the whole art of chessplay would be contained in the processes of Lesser Logistics.

All the conditions would be known, the proposition would be exact, the calculations would be merely those of simple arithmetic, and White would win by establishing his pieces on a grand front by the right oblique.

But it so happens that the opposing force not only is able to move, but it is capable of being moved with vigor and effect ; and the resultant of all this is that the opposing force possesses, and can exert, *a power for resistance* which in common practice is quite equal to the power of attack put forth by White.

In war, this fact is emphasized, and often laughably exaggerated. The basic proposition of military science is that two men can whip one ; but the history of war is the story of the victory of the under dog, and in actual warfare the difficulty always is to prevent the one man from trouncing *seriatim* both of his *usually unprepared and isolated* enemies.

Again, the powers for attack and the powers for resistance possessed by the opposing forces are *indeterminate and irregularly distributed*.

The reason for this is, that while the right of movement appertains equally to every chesspiece, not more than one chesspiece can be moved *at any given turn to play*, and consequently the vigor and effect of any given move is problematical, and is dependent upon and proportionate *to the support subsequently accorded it* by kin-

dred pieces and to the resistance offered to it by adverse pieces.

Hence, it follows that it is imperative, from the midst of the strategic, tactical, and topographical differences which exist in every situation on the chessboard or on the battlefield, to establish mathematical harmony, and it is obvious that this harmony consists in consolidating as a unit the total strength of the kindred force, and in directing it against the *strategic vertices of the true strategetic horizon*, whenever a strategetic weakness exists in the adverse position and against the *Topographical Key*, whenever a strategetic weakness does *not* exist in the adverse position.

With the minor processes of Greater Logistics which appertain exclusively to simple lines of manœuvre, and with the major processes of Greater Logistics which appertain to compound and to complex lines of manœuvre, and to lines of operation, the student already is familiar, and, *given the True Strategetic Horizon*, he will have no difficulty in detecting and describing the Strategic Vertices, the Points of Command, of Manœuvre, and of Departure, the Topographical, Tactical, and Strategic Keys, and the Logistic Radii.

That calculation whereby the True Strategetic Horizon is detected in the midst of a number of strategetic horizons coexisting in any given situation on the surface of the chessboard *is the connecting link between the science of chess and the art of chessplay*; it is that manifestation of "genius," whereby the greater master at chess and the greater master at war so easily and so completely overthrows his adversaries, and it is the touchstone by the use of which the mere theorist and the mere tactician may come to realize the full scope and the intellectual magnificence both of chess and of war, *viz.*: —

BASIC PROPOSITION OF GREATER LOGISTICS.

THEOREM.

To determine the TRUE Strategic Horizon, the TRUE Tactical Evolution, and the TRUE Tactical Sequence.

Locate a tactical key in the adverse position, the occupation of which by a given kindred piece will —

(a) Checkmate the adverse king ;

(b) Or, queen a kindred pawn ;

(c) Or, win a hostile piece ;

and connect this tactical key, by a logistic radius, with that point of command which, at the given time, is occupied by the given kindred piece.

Locate a second but VACANT point of command, which, if occupied by a second kindred piece, will operate radii of offence simultaneously against a second and third tactical keys in the adverse position ; and connect this point of command, by a logistic radius, with that point of manœuvre which, at the given time, is occupied by the given second kindred piece.

Then, if either the given second or third tactical keys, together with the strategic key (to be determined) and a third point of command occupied by a third kindred piece, are contained in the same vertical, the same horizontal, or the same diagonal, and if the first tactical key and the tactical key last specified are both situated on the perimeter of that geometric symbol which appertains to the third kindred piece, but are not situated in the same topographical horizon ;

(a) The occupation of the given second point of command is the TRUE TACTICAL EVOLUTION ;

(b) The tactical keys situated on the perimeter of this geometric symbol, together with the strategic key, — which always is the CENTRE of the given geometric symbol, — con-

stitute the strategic vertices of the TRUE STRATEGETIC HORIZON ;

(c) Of which the third kindred piece is the column of the centre : the first kindred piece is the column of the right, or of the left, and the second kindred piece is the column of the left or of the right, respectively ; and the arrangement of moves required to occupy the strategic vertices constitutes the TRUE TACTICAL SEQUENCE.

THE TACTICAL SEQUENCE.

The Tactical Sequence consists of those marches whereby the Corps Offensive leave their respective points of departure or of manœuvre and advance along the logistic radii which appertain to the true strategetic horizon, to their respective points of command against the strategic vertices.

FOURTEENTH LAW OF THE ART OF CHESSPLAY.

A projected march by a Corps Offensive is valid when it is directed against a Point Offensive, and :

(a) When such Point Offensive is the point of command in a tactical horizon of which the given Corps Offensive is the prime tactical factor ;

(b) And when one of the tactical keys contained in the given tactical horizon is situated on the perimeter of that geometric symbol of which the strategic key of the true strategetic horizon is the centre ;

(c) And when the exponent of the given Corps Offensive is not less than the defensive exponent of either of those tactical keys which are contained in the given tactical horizon :

(d) And when such march is in proper sequence with the other marches of the kindred Corps Offensive.

All marches which properly appertain to Corps Offensive are combined in three distinct ways, each of which

methods constitutes a series of movements and is termed a Prime Logistic Operation, *viz.* :—

FIRST TACTICAL SEQUENCE.

March No. 1. — This march always is made either by the column of the Right or of the Left, which advances from a point of manœuvre along an open logistic radius, and occupies a point of command against one of the tactical keys contained in that strategic weakness, which at the given time exists in the adverse position.

March No 2. — This march always is made by that flank column which is not engaged in making March No. 1. It always advances from a point of manœuvre along an open logistic radius, and occupies a point of command against two or more tactical keys, one of which latter is contained in the perimeter of the same geometric symbol with that tactical key attacked by the first kindred column, but not in the same topographical horizon.

March No. 3. — This march always is made by the column of the centre, which advances from a point of manœuvre along an open logistic radius, and occupies a point of command simultaneously against the strategic key of the true strategetic horizon and a tactical key.

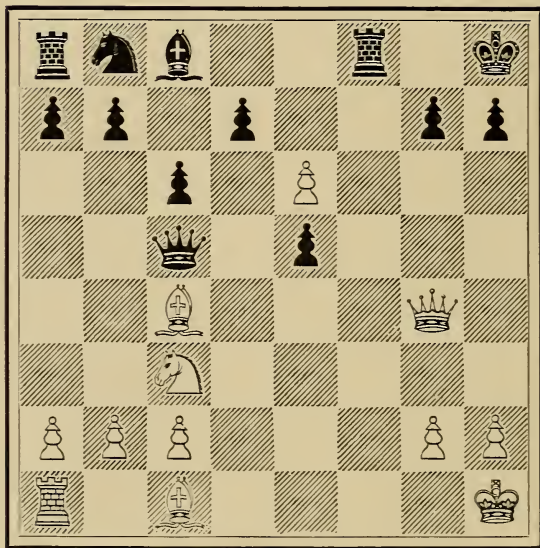
March No. 4. — This march always is made by the column of the centre, which advances from a point of command along an open logistic radius and occupies the strategic key of the true strategetic horizon.

March No. 5. — This march always is made by that kindred column, whether of the Centre, Right, or Left, which can by that single move either win a hostile piece, queen a kindred pawn, or preferably checkmate the adverse king.

FIRST TACTICAL SEQUENCE.

FIGURE 104.

MR. BURILLE.



MR. YOUNG.

NOTE. — In this situation it is obvious that if Black had the move he would win by playing P to Q 4.

Hence, White must either act on a line of operations, or he must act on a simple line of manœuvre and prevent the advance of the Black Q P.

An exact reconnoissance of the situation shows that the Black force is divided into two great isolated masses,

and that only one of these masses — *i. e.*, that composed of the Black K, Q, R, K P, K Kt P, and K R P—is in action.

According to Napoleon's dictum it is necessary for White to act either against the communications of these two isolated masses or against the communications of the active adverse mass with its base; *i. e.*, the Black K. The latter course would be brilliantly decisive, but in this case no strategic line of operations can be mathematically demonstrated.

Thus it is White's sole resource, being inferior in force, to act on a simple line of manœuvre and endeavor to perpetuate and to intensify the unscientific isolation of Black's divided army.

But the exact reconnoissance of the general situation also shows that there is a prospective complex line of manœuvre open to White, provided that the Black Q can be compelled or enticed to withdraw the radius of defence which is operating for the support of Black K 2.

This prospective complex line of manœuvre results from the fact that White's corps of the ^{right} left (White Q) already occupies a point of command against one tactical key (Black K Kt 2) and remotely against a second tactical key (Black's K K 1); and that if the White K P, which occupies a point of manœuvre, can advance to its point of command (Black's K 2), and from whence it would attack simultaneously two tactical keys (Black K B 1 and K 1), the White K B also would be brought into co-operation with the White Q.

But although this is so, it still is the fact that this prospective complex line of manœuvre never may be realized, and, as the student must always recollect, *the most pressing need always must first be attended to.*

Therefore, although White should hold in view the

possibility of this prospective attack against the Black K, nevertheless, he on his turn to play must be governed by the principles of the simple line of manœuvre, as his immediate object is to prevent the play of P to Q 4 by Black.

That is to say, White must dictate Black's next move; *i. e.*, White must retain the initiative. White now applies the tactician's rule, and at once sees that he can compel the Black Q to perform two functions; *viz.*, to defend the Black K 2 and at the same time to protect itself against attack, and White further sees that such onus, if thrown on the Black Q, will prevent the move of P to Q 4 by Black, and will dictate as his next move a move by the Black Q.

This, of course, is just what White wants to do; and he can do this in three ways; *viz.*, by Kt — Q R 4, by B — K 3, or by P — Q Kt 4.

Either of these moves by White is equivalent, in war, to outflanking a hostile corps which is defending a strategic point. A detachment made for such a purpose may be sacrificed if such sacrifice insures a line of operations.

Consequently, White selects his Q Kt P as a Corps Detached to be sacrificed as the most judicious method to fulfil the requirements of the immediate simple line of manœuvre and to bring about the prospective complex line of manœuvre, and he plays:—

MR. YOUNG.

1. P — Q Kt 4.

If the Black Q retreats to Q 3 or to K 2, then the complex line of manœuvre begins, and the initiative is retained for White by Kt — K 4, or B — K Kt 5. So Black plays:—

MR. BURILLE.

1. Q $\times$ Kt P.

Still White must keep to the simple line of manœuvre in order to retain the initiative and to prevent Black from playing P — Q 4; so he continues:—

2. R — Q Kt 1.

2. Q $\times$ Kt.

Black evades the snare laid for him by the offer of the White Q; *i. e.*, Black could have played 2. R — K B 8 (ck); 3. B $\times$ R, Q $\times$ Q; 4. P — K 7, Q — K 3; 5. B — R 3, P — Q 4; 6. Kt $\times$ Q P, P $\times$ Kt; 7. B — Q Kt 5, B — Q 2; 8. R — K B 1, and White wins.

Of course, Black by taking the Kt permits White to act on a complex line of manœuvre against the Black K. The situation is replete with instruction for the student of this theory.

3. B — K R 6.

This is another sacrifice of a Corps Detached to dictate Black's reply and thus to retain the initiative, and is the beginning of the strategic line of operations.

3. P $\times$ B.

Black must avert the mate at the expense of a move and thus permit the White column of the centre to occupy its point of manœuvre (White K B 1). This capture by Black also uncovers the Black K Kt 1 to the combined attack of the White Q and K B.

4. P — K 7.

White now advances his corps of the left to a point of command whereat it attacks simultaneously two tactical keys (Black K 1 and K B 1).

4. R — K 1.

The Black R thus attacked is obliged to preserve itself and to support the kindred point of junction against the attack of the White K P. It thus acts as a part of the column of manœuvre by constituting itself a point of impenetrability.

But by so doing, as the student readily sees, the Black R abandons the strategic key, *i. e.* (Black K B 2), for it is evident that if a White R be posted at Black's K B 2, it simultaneously will attack both Black K B 1 and K Kt 2, both of which are tactical keys, and thus the strategic horizon will be complete, with the strategic vertices occupied by the Corps Offensive, and consequently it will be a winning position for White.

5. R — K B 1.

The White Corps of the Centre now occupies its point of manœuvre and at the same time simultaneously attacks the strategic key and a tactical key, according to the grand law of chessplay as laid down in this theory.

5. Q — Q B 4.

The student will observe that although Black has captured three detached corps for which White has no further use, his position not only is not further developed, but on account of the removal of the Black K Kt P from K Kt 2, it is even weaker than before his first move, and that White still retains the initiative and the right to move.

6. R — B 7.

The White Corps of the Centre now occupies the strategic key from whence it simultaneously attacks

the two tactical keys, which also are attacked by the Corps of the Right and of the Left, respectively. The position now is a winning position for White either with or without the move.

6. R — Kt 1.

Black, obviously, cannot prevent both the threatened mate and the threatened occupation of the logistic horizon by the White K P.

7. R × R P (ck). 7. K × R.

8. Q × R (ck).

Checkmate.

SECOND TACTICAL SEQUENCE.

March No. 1. — This march always is made by the column of the Right or of the Left, which advances from a point of manœuvre along an open logistic radius and occupies a point of command against one of the tactical keys contained in the strategetic weakness which at the given time exists in the adverse position.

March No. 2. — This march always is made by the column of the centre, which advances from a point of manœuvre along an open logistic radius and occupies the strategic key of the true strategetic horizon.

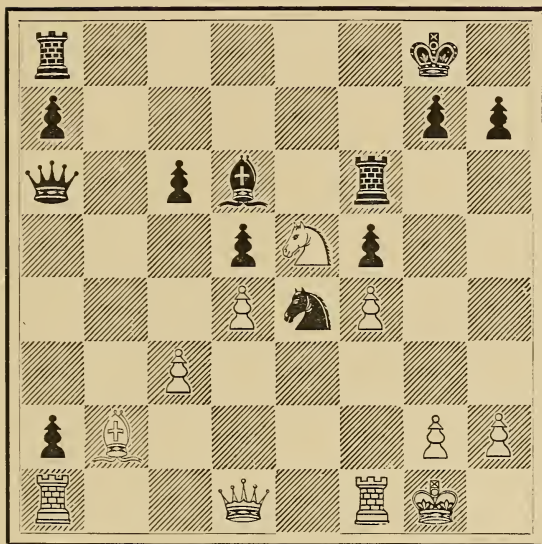
March No. 3. — This march always is made by that flank column which is not engaged in making March No. 1. It always advances from a point of manœuvre along an open logistic radius and occupies a point of command against two or more tactical keys, one of which latter is contained in the perimeter of the same geometric symbol with that tactical key attacked by the first kindred column, but not in the same topographical horizon.

March No. 4. — This march always is made by that kindred column, whether of the Centre, Right, or Left, which can most effectively occupy a tactical key and in one move win a hostile piece, queen a kindred pawn, or, preferably, checkmate the adverse king.

SECOND TACTICAL SEQUENCE.

FIGURE 105.

MR. YOUNG.



MR. HARLOW.

NOTE. — This situation shows each of the three Black Corps Offensive posted on a point of manœuvre.

The strategetic weakness in the White position is that of Class III. (see "Grand Tactics," p. 36). It consists of the undefended White ~~K~~ B and the White K Kt P, which latter is defended only by the White K.

The strategic horizon thus is formed, being composed of that part of the second horizontal which extends

from White's K Kt 2 to his Q Kt 2. The strategic key is White K 2, and this point is connected by an open logistic radius with Black's Q R 3, an adverse point of manœuvre which at the present moment is occupied by the Black Q.

An open logistic radius leads from White's Q Kt 2 to Black's Q Kt 1, which latter is a point of command for the Black Q R. This piece is connected with its point of command by an open logistic radius extending from the point of manœuvre, Black Q R 1.

Another open logistic radius leads from White's K Kt 2 to Black's K Kt 3, which latter is a point of command for the Black K R. This piece is connected with its point of command by an open logistic radius extending from the point of manœuvre, Black K B 3.

Following the rule which governs the first march in the Second Tactical Sequence, one of the Black flanking corps is deployed to its point of command. This choice necessarily falls on the Black Q R, inasmuch as no line of operation exists, it would be inadvisable to allow the White column of support the advantage of a passed pawn on the centre by B $\times$ Kt, which obviously would have to be done in order to play K R $\div$ K Kt 3.

Hence, Black correctly deploys an inactive piece on the complex line of manœuvre, *viz.* :—

MR. YOUNG.

1. Q R — Q Kt 1.

Obviously the White Q B cannot retreat to Q B 1, as in that case the White Q B P would fall victim to the Black Kt, which in this situation is a Corps Detached and prevents the occupation of the supporting posts, White K B 2 by the White R, and Q 2 by the White Q. The P at Black's Q R 7 also is a Black Corps Detached

preventing the White Q R from occupying the supporting post, White Q Kt 1. White moved, *viz.*:—

MR. HARLOW.

2. Q — Q B 1.

This was a fatal error. It is imperative that White in a single move support the attacked tactical key (White Q Kt 2) and also defend the strategic key (White K 2). The only move to do both of these things simultaneously was to play Q — Q B 2.

2. Q — K 7.

According to rule, the second march of a Corps Offensive in the Second Tactical Sequence always is made by the corps of the centre. White having left the strategic key of the position undefended, Black at once occupies it with his Q, thus simultaneously attacking both tactical keys (White Q Kt 2 and White K Kt 2).

This situation will command the attention of every student of strategics, whether of war or of chess. It is the exact replica on the chessboard of those evolutions whereby Napoleon won the battle of Austerlitz, — the victory upon which he most prided himself.

3. R × P.

It made no difference what White played. “War,” says Napoleon, “is a business of positions.” White loses, not because Black has two pawns plus, but because two Black Corps Offensive occupy two of the strategic vertices of the position and dictate White’s next move.

3. B × Kt.

Here the student again sees the co-operation of a kindred corps detached. The White Kt prevented the occupation by Black’s K R of the point of command,

Black K Kt 3. White cannot take the Black K B, for he must prevent the Black K R from occupying its point of command, as then all three of the Black Corps Offensive would become posted on the strategic vertices, which would win offhand for Black, either with or without the move. (See Fig. 93.)

4. Q — Q 1.

White, of course, is beaten. But to prolong the contest he adopts the only course, and plays to subordinate the dominant adverse Prime Strategic Factor.

That is to say, White is threatened with checkmate by the Black Q ; he removes this danger for the time being.

4. Q × Q.

This is to dictate White's next move, and thus to gain the necessary time to save the Black K B.

5. R × Q.

White thus saves his King.

5. B × B P.

As the result of his tactical line of operation, Black has a piece and two pawns ahead, and, of course, wins easily.

THIRD TACTICAL SEQUENCE.

March No. 1. — This march always is made by the column of the centre, which advances from a point of command along an open logistic radius and occupies the strategic key of the true strategetic horizon.

March No. 2. — This march always is made by the column of the Right or Left, which advances from a point of manœuvre along an open logistic radius and occupies a point of command against two or more tactical keys, one of which latter is contained in the perimeter of that geometric symbol with a tactical key attacked by the column of the centre, but not in the same tactical horizon.

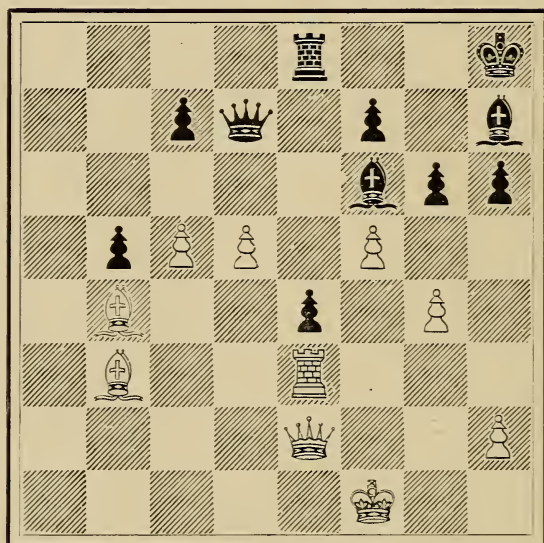
March No. 3. — This march always is made by the kindred flank column which is not engaged in March No. 2. It always is directed from a point of manœuvre toward a point of command against two tactical keys in the adverse position and under like conditions.

March No. 4. — This march always is made by that kindred column, whether of the Centre, Right, or Left, which can most effectively occupy a tactical key, and by that single move either win a hostile piece, queen a kindred pawn, or, preferably, checkmate the adverse king.

THIRD TACTICAL SEQUENCE.

FIGURE 106.

MR. WARE.



MR. YOUNG.

NOTE. — This is a most instructive situation and amply will repay the closest scrutiny. Herr Steinitz, in the "International Chess Magazine," states that "White's play is of a high order."

An exact reconnoissance of the situation shows that the dominant Prime Strategic Factor is White's column of support. This results from the fact that his aligned Q P and Q B P outfront the P at Black's Q B 2.

This advantage is supplemented by the fact that White, having the move, can establish the grand front by the left oblique; and all this is intensified by the further facts that White can retain the initiative by attacking the Black Q, and thus dictate Black's next move.

Thus, in obedience to the laws of the art, White plays:—

MR. YOUNG.

1. P — Q B 6.

This is the march of a corps detached for the purpose of nullifying the defensive force of a corps defensive (Black Q), and so enable the White Q to capture the Black Q Kt P. It also combines the true line of development according to the principles of "Grand Tactics."

MR. WARE.

1. Q — Q B 1.

This was a tactical error, as thereby Black posts his Q and R on the vertices of the geometric symbol of the pawn.

2. Q $\times$ P.

This is the march of the corps of the centre from the point of departure to the point of manœuvre.

2. P $\times$ P.

Black plays to regain the pawn and to expose the White K.

3. P — Q 6.

This is the march of a detached corps for the purpose of nullifying the point of impenetrability at Black's Q B 2 in order to clear the logistic radius for the advance of the White corps of the left to its point of command (Q B 7) against the tactical key (Q B 8). White

preserves the initiative by threatening P — Q 7 on his next turn to play.

3. P × Q P.

This seems to be Black's best defence. But the loss of time permits White to seize the strategic key (White's Q Kt 7).

4. B × K B P.

This is the march of a detached corps made for the purpose of capturing adverse material (Black K B P) and for retaining the initiative, *i. e.* dictating Black's reply.

4. R — B 1.

Black should have played R — K 2, thus defending the strategic key (Black Q Kt 2) against the White Q.

5. Q — Kt 7.

This is the first march of the third tactical sequence. The White corps of the centre (Q) occupies the strategic key (White Q Kt 7) and operates simultaneously against the tactical keys (White Q B 8 and Q Kt 2).

5. B — K ~~Q 7~~

Mr. Ware failed to comprehend the mathematics of this situation.

6. B × Q P.

The White corps of the right moves from the point of manœuvre (White Q Kt 4) and occupies the point of command (White Q 6), thus attacking the corps defensive (Black K B) which guards the tactical key (White Q Kt 2). The White Q B is secure in this movement, as it is sustained by the White Q; for the Black K B cannot act at two points at once, and consequently it cannot both defend the tactical key (White Q Kt 2) and

capture the White Q B at Black's Q 3. Furthermore, White retains the initiative, as he threatens to play Q B $\times$ B on his next move.

6. B — Kt 2.

Seemingly, there is no more preferable alternative. To avoid a strategic line of operation Black is compelled to submit to loss of material.

7. B $\times$ R.

The White corps of the right takes possession of the spoil resulting from the superiority in position.

7. Q $\times$ B.

Black also is forced to withdraw his point of impenetrability on the logistic radius of the White corps of the left.

8. P — B 7.

The march of the White corps of the left against the tactical key (White Q B 8), in which movement it is supported by the White corps of the centre posted on the strategic key (White Q B 7).

8. Q $\times$ B.

9. P — B 8 (Q ck).

The march of the White corps of the left from the point of command, and occupation of the tactical key, which is a point of junction in the kindred logistic horizon.

That is, White's column of support has forced its way to the battlefield, and the united White columns of attack and of support will now easily overwhelm the single Black column of attack.

CORPS DEFENSIVE.

Those chesspieces which in a given situation are engaged in protecting other kindred pieces, or in opposing the occupation of points offensive by adverse corps, are termed in this theory *Corps Defensive*.

This species of chess-force is divided into three classes, *viz.* : —

(a) Sustaining Corps.

(b) Supporting Corps.

(c) Covering Corps.

Sustaining Corps are those which at a given time are defending a given point or piece, by threatening to inflict upon the opponent a greater loss if such point or piece be captured.

This threat of the sustaining corps always assumes one or two forms :—

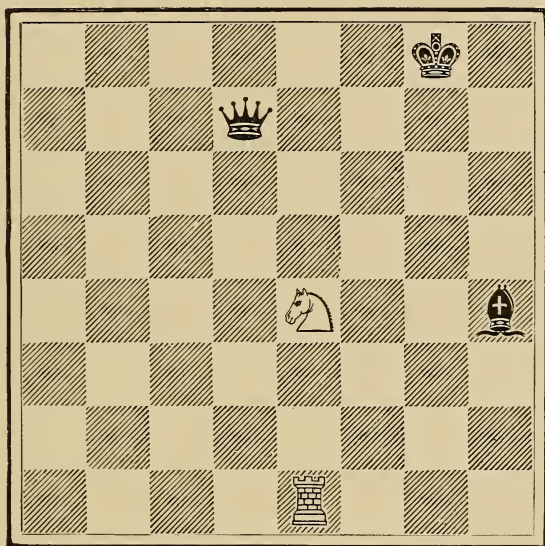
(a) To capture the adverse piece should it capture the kindred point or piece.

(b) To capture some other adverse piece or point of greater value than that which is lost.

SUSTAINING CORPS.

FIGURE 107.

Black.



White.

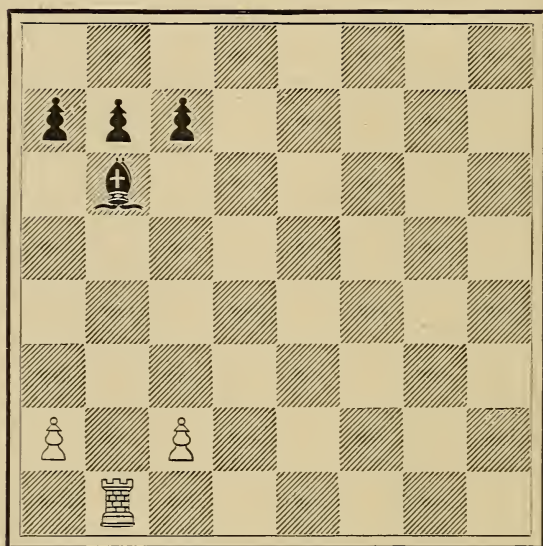
NOTE. — The White Kt is a sustaining corps, as it will win the Black Q by Kt to K B 6 (ck) if Black K B takes the White R.

Supporting Corps are those which at a given time protect a given piece or point by directing against it a radius of defence.

SUPPORTING CORPS.

FIGURE 108.

Black.



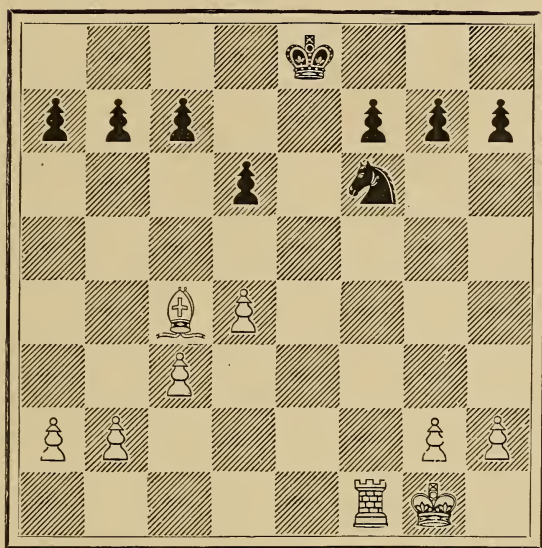
White.

The Black Q B P and Q R P are supporting corps, as they protect the Black K B against the attack of the White R.

Covering Corps are those which in a given situation intercept an adverse radius of offence which otherwise would fall upon a kindred piece or point.

COVERING CORPS.

FIGURE 109.

Black.*White.*

NOTE. — The Black Kt is a covering corps, as it covers the Black K B P from the attack of the White R.

All else being equal, a Corps Defensive is lost whenever it is attacked by an adverse force and is unable to retire, or to be properly supported, covered, or sustained.

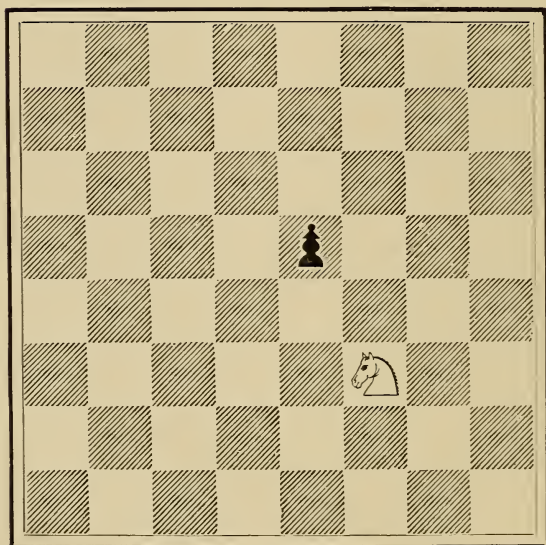
A Corps Defensive is unable to retire : —

(a) When it is not its turn to move.

CORPS DEFENSIVE SURPRISED.

FIGURE 110.

Black.



White.

White to move and win.

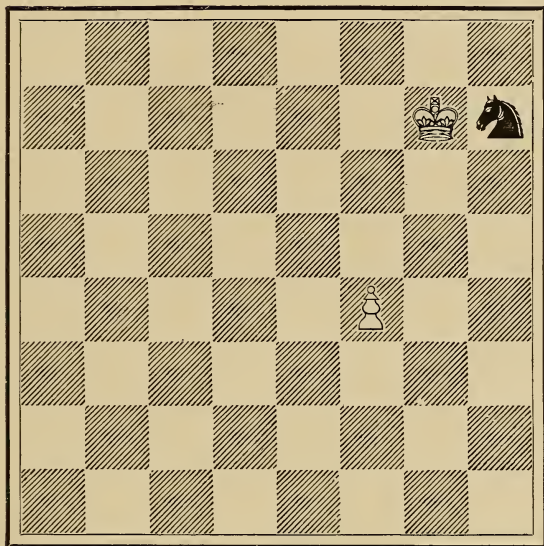
In this situation the Corps Defensive is said to be surprised.

(b) When there is no point to which it can move.

CORPS DEFENSIVE SURROUNDED.

FIGURE 111.

Black.



White.

White wins either with or without the move.

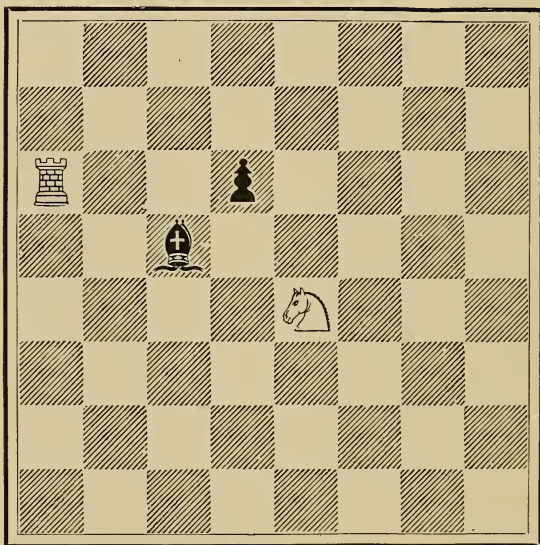
In this situation the Corps Defensive is said to be surrounded.

(c) When it is posted in support of a more important kindred piece, which latter also is attacked.

CORPS DEFENSIVE OUTNUMBERED.

FIGURE 112.

Black.



White.

White wins either with or without the move.

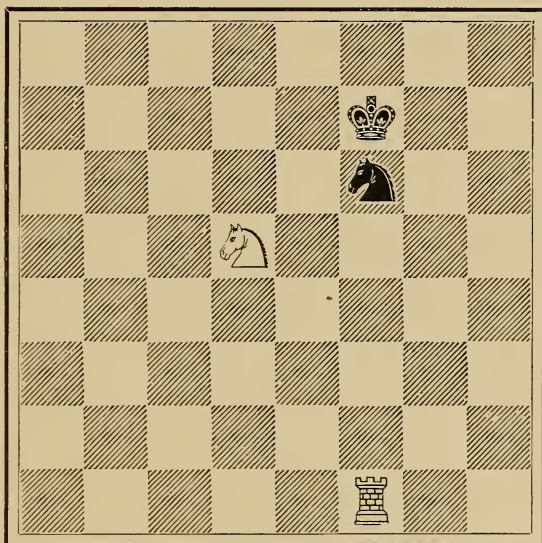
In this situation the Corps Defensive is said to be outnumbered.

(d) When it is covering a more important kindred piece.

CORPS DEFENSIVE COMMANDED.

FIGURE 113.

Black.



White.

White wins either with or without the move.

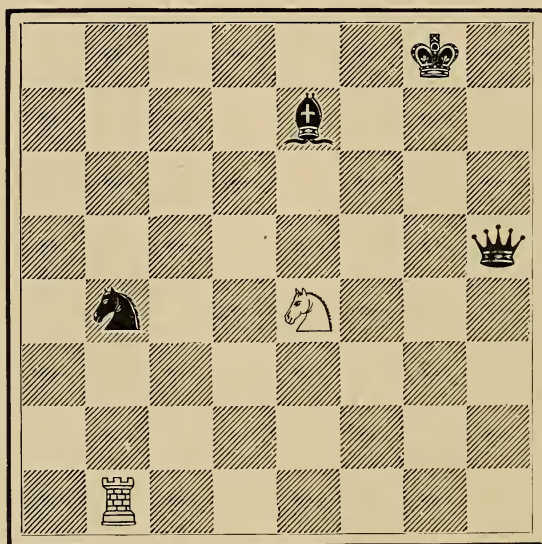
In this situation the Corps Defensive is said to be commanded.

(e) When it is posted in support to prevent the occupation of a point offensive.

CORPS DEFENSIVE OUTFLANKED.

FIGURE 114.

Black.



White.

White, having the move, wins a piece by R takes Kt as the Black K B cannot leave Black K B 3 unsupported on account of the White Kt winning the Black Q by Kt B 6 (ck).

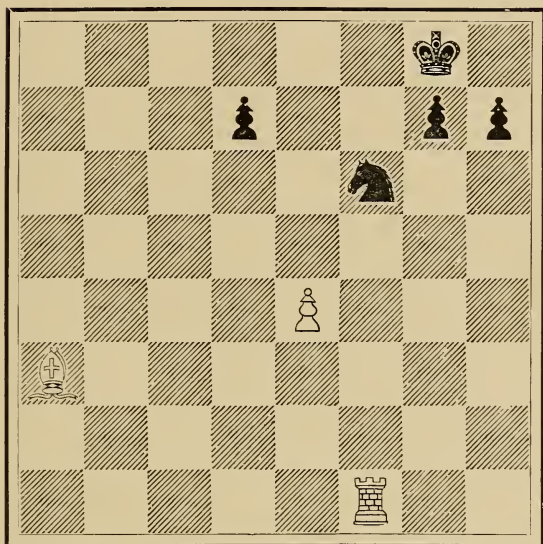
In this situation the Corps Defensive is said to be outflanked.

(f) When it is posted to cover and prevent the occupation of a Point Offensive.

CORPS DEFENSIVE OUTFRONTED.

FIGURE 115.

Black.



White.

White, having the move, wins a piece by P to K 5, as the Black Kt must cover the tactical key, Black K B 1.

In this situation the Corps Defensive is said to be outfronted.

CORPS DETACHED.

A Corps Detached is any chesspiece which, in a given situation, although actively participating in an offensive movement, is not a corps of the Centre, nor of the Right, nor of the Left.

Those marches which appertain to Corps Detached are termed Secondary Logistic Operations, and the object of such movements always is to eliminate or to neutralize the resistance of adverse Corps Defensive.

Although a Corps Detached always acts independently of the remaining kindred pieces, nevertheless it always must be a strategetic mass governed in its deployments, developments, manœuvres, and operations by the laws of the art of chessplay, and at all times it must act in harmony with the Prime Strategetic Factors.

A Corps Detached eliminates or neutralizes an adverse Corps Defensive, by either surprising, surrounding, outnumbering, commanding, outflanking, or outfronting a compromised adverse piece.

The Queen or the Knight can surprise and capture any adverse piece.

The King, Rook, or Bishop can surprise and capture any adverse piece except the Queen.

The Pawn cannot surprise and capture any adverse piece.

The Queen can surround and capture an adverse Knight or Pawn.

The King can surround and capture an adverse Knight or Pawn.

The Rook can surround and capture an adverse Knight or Pawn.

The Bishop can surround and capture an adverse Knight or Pawn.

The Knight can surround and capture an adverse Knight or Pawn.

Any piece aided by kindred pieces can surround and capture any adverse piece.

Any piece aided by adverse pieces can surround and capture any adverse piece.

Any piece can command, outflank, and outfront any adverse piece.

Any two pieces can outnumber any adverse piece.

Every movement of a Corps Detached is governed by the following : —

FIFTEENTH LAW OF THE ART OF CHESSPLAY.

At every turn to move note those points which by the last move of the opponent are left uncovered, unsupported, and unsustained; and whether the occupation of such point by a kindred piece will outfront, outflank, surround, outnumber, command, or surprise one or more adverse pieces. And if so, combine this tactical defect with a similar defect in some other part of the adverse position.

PLANS OF CAMPAIGN.

Any given plan of campaign may endure for many moves, or it may become vitiated after a few moves, or it may be changed at every move ; but in all cases the true plan of campaign is governed by the following :

SIXTEENTH LAW OF THE ART OF CHESSPLAY.

I. *In every true plan of campaign, the Prime Logistic Operation always emanates from that Kindred Prime Strategic Factor which dominates the given situation and always takes direction towards the natural objective of the given Kindred Prime Strategic Factor.*

II. *In all cases wherein the given situation is dominated by an adverse Prime Strategic Factor, the Prime Logistic operation always emanates from that Kindred Prime Strategic Factor which at the given time is best calculated to reduce the dominant adverse Prime Strategic Factor to a Factor Subordinate.*

III. *A true plan of campaign never contemplates a Prime Logistic Operation by a Factor Subordinate.*

By means of this law the student readily sees that every true plan of campaign changes as the relative value of the opposing Prime Strategic Factors changes, and that the duration of any plan of campaign, therefore, is indeterminate and may be altered with each succeeding move.

Hence, obviously it is imperative that, at every turn to move, the entire situation be exactly reconnoitred. This is done in the following manner, *viz.* :—

RULES FOR MAKING A RECONNOISSANCE ON THE
CHESSBOARD.

(a) Compare the opposing columns of manœuvre, and note that one which has the advantage.

(b) Specify in what this advantage consists.

(c) Compare the opposing columns of support, and note that one which has the advantage.

(d) Specify in what this advantage consists.

(e) Compare the opposing columns of attack, and note that one which has the advantage.

(f) Specify in what this advantage consists.

At every turn to move, the plan of campaign should be either strategically offensive or strategically defensive.

(a) If offensive, it should combine those measures whereby that column in which the kindred force has the advantage may be made the Predominant Prime Tactical Factor in the given situation.

(b) If defensive, it should combine those measures whereby that column in which the adverse force has the advantage may be reduced to a subordinate Prime Tactical Factor in the given situation.

A plan of campaign should be offensive whenever the kindred force has the advantage :—

1. With the column of attack, with the column of support, and with the column of manœuvre.

2. Both with the column of attack and with the column of support.

3. Both with the column of attack and with the column of manœuvre.

4. Both with the column of support and with the column of manœuvre.

5. With the column of attack, no offsetting advantage appertaining to the adverse column of support.

6. With the column of support, no offsetting advantage appertaining to the adverse column of attack.

A plan of campaign should be defensive whenever the opponent has the advantage:—

1. Both with the column of attack and with the column of support.

2. With the column of attack, no offsetting advantage appertaining to the kindred column of support.

3. With the column of support, no offsetting advantage appertaining to the kindred column of attack.

PRIME LOGISTIC OPERATIONS.

Having decided on the plan of campaign, the logistic operation will either be a line of manœuvre or a line of operation ; each of which may or may not combine with itself a line of mobilization or a line of development.

Whenever the logistic operation takes the form of a line of manœuvre, the latter always is either : —

1. Simple,
2. Compound, or
3. Complex.

The simple line of manœuvre always should be adopted whenever an exact reconnoissance of the entire situation at any given turn to move shows no strategetic weakness in the adverse position.

A simple line of manœuvre preferably should combine with itself a line of mobilization or a line of development ; in direction it should be coincident with the dominant Kindred Prime Tactical Factor, and at every move it should either occupy the topographical key, or attack simultaneously the topographical key and one or more tactical keys in the adverse position.

The compound line of manœuvre always should be adopted whenever an exact reconnoissance of the entire situation at any given turn to move shows a true strategetic horizon whose vertices constitute an adverse strategetic weakness of either Class IV., V., VI., or VII., in a direction coincident with the dominant kindred Prime Tactical Factor.

A compound line of manœuvre preferably should combine with itself a line of mobilization or a line of development; in direction it should be coincident with the dominant Kindred Prime Tactical Factor, and at every move it should attack simultaneously two or more tactical keys in the adverse position.

A complex line of manœuvre always should be adopted whenever an exact reconnoissance of the entire situation at any given turn to move shows a true strategetic horizon whose vertices constitute an adverse strategetic weakness of Classes I., II., and III., in a direction coincident with the dominant Kindred Prime Strategetic Factor.

A complex line of manœuvre preferably should combine with itself either a line of mobilization or a line of development; in direction it should be coincident with the dominant Kindred Prime Strategetic Factor, and at every move it should attack simultaneously two or more tactical keys in the adverse position.

Whenever the logistic movement takes the form of a line of operation the latter always is either

- I. Strategic.
- II. Tactical.
- III. Logistic.

When the line of operation is strategic, it is coincident with the kindred column of attack and always takes direction towards the objective plane. The tactical key always is that point from which the Prime Tactical Factor may command the ultimate objective plane, and the Prime Tactical Factor always is that Corps Offensive whose exponent of force is equal to the net mobility of the adverse king.

When the line of operation is logistic, it is coincident with the kindred column of support and always takes

direction towards the kindred logistic horizon. The tactical key always is a point of junction, and the Prime Tactical Factor always is a kindred pawn.

When the line of operation is tactical, it may be coincident either with the column of attack, or with the column of support, or with the column of manœuvre. The tactical key always is a point occupied by an adverse piece, and the Prime Tactical Factor always is a kindred piece posted on the centre of its own geometric symbol at a time when the tactical key is a point on the perimeter of the same geometric symbol.

Whether the line of operations be strategic, tactical, or logistic, *every move of a Corps Offensive should simultaneously attack two or more inadequately defended tactical keys, both of which are not situated in the same topographical horizon.*

ORDERS OF BATTLE.

Having determined whether the balance of advantage is with the kindred or with the adverse force, and whether, in consequence, the kindred plan of campaign is to be strategically offensive or strategically defensive; and having designated the Prime Logistic Operation and determined the *true* strategic horizon, the *true* tactical evolution, and the *true* tactical sequence of moves appertaining to the corps offensive; the next step is to depict the correct order in which the corps offensive shall be brought into action against the strategic vertices, — if a strategic weakness exists in the adverse position, or against the topographical key, if no strategic weakness exists in the adverse position, — or how the corps defensive shall be brought into action in order to neutralize the dominant adverse prime strategic factor.

It is thus easy to see that all orders of battle necessarily are divided into two classes : —

I. Offensive.

II. Defensive.

Offensive orders of battle are of three kinds : —

(a) Those in which the corps offensive are manœuvred according to the first tactical sequence.

(b) Those in which the corps offensive are manœuvred according to the second tactical sequence.

(c) Those in which the corps offensive are manœuvred according to the third tactical sequence.

The fundamental idea of strategics, whether of war or of chess, is that the strategic offensive always wins,

and the strategetic defensive always loses. Consequently, it is obvious that *no* valid system of defensive tactics is possible — *since any defensive system must lose* — and equally so it is only by assuming the offensive strategetically that the chessplayer, or the military commander, can hope to achieve, or even to deserve, victory.

But of course situations will necessarily and frequently arise, both in warfare and in chessplay, wherein even the greatest master and the greatest captain will find himself, for reasons beyond his control, at least temporarily compelled to act on the strategetic defensive.

According to all writers on strategetics, the defending party admittedly is in a bad pickle, and all these writers invariably have left him in that condition. For the first time by any author, the basic law of defensive tactics was announced on page 349 of “The Grand Tactics of Chess,” *viz.* : —

“The nature of the offensive is *constructive*, and the nature of the defensive is *destructive*, and the prime energies of the defence always must be devoted to destroying those formations which the attack labors to erect.”

Hence, it is clear that the defensive order of battle *must absolutely conform to the adverse offensive order of battle*, and that its prime object must be *to reduce the dominant adverse prime tactical factor to a subordinate factor*, *viz.* : —

1. By eliminating the adverse corps offensive.
2. By commanding the adverse points offensive.
3. By obstructing the adverse logistic radii.

Thus it is that these special duties of detail appertain particularly to the defending force, *viz.* : —

(a) To adequately cover, support, and sustain all kindred tactical keys.

(b) To maintain a point of impenetrability on every adverse pawn altitude.

(c) To permit no corps defensive to be outfronted, outflanked, commanded, outnumbered, surrounded, or surprised.

(d) To prevent the development of the adverse minor front into a major front directed towards the kindred prime strategetic point.

But it is not sufficient for the defending chessplayer, or for the defending military commander, to limit himself to the strategetic defensive, even though the latter be supplemented by the tactical offensive.

On the contrary, the defending party *must seize the first opportunity to assume the strategetic offensive*, in accordance with the following (see "Grand Tactics," p. 249) :—

"Having the strategetic defensive, assume the strategetic offensive at the earliest possible moment; and having assumed the strategetic offensive, deploy, develop, manœuvre, and operate as though having the strategetic offensive originally."

Hence, it is obvious to the student, whether of chess, of war, or of mathematics, that at every turn to play the defending player either should occupy an adverse tactical key, or should unite with a deployment or development an attack against one or more adverse tactical keys.

In order that even the veriest tyro may be able to understand what this means, the following dictum is laid down in simple and unmistakable language :—

THE TACTICIAN'S RULE.

At every turn to play, the piece moved, whether white or black, and whether acting on the offensive or on the defensive, should — either directly, by its own movement ; or indirectly, by opening a way for the movement of some other kindred piece ; or, by the combining of its own movement with the disclosed movement of some other kindred piece — attack and threaten to capture on the next turn to play two or more points or adverse pieces, such capture winning the game.

This is the rule invariably followed by the mere tactician, and the rule invariably ignored by the mere theorist.

Because he tries to conform to this rule, and thereby to profit to the uttermost by the condition which exists, is the reason why the tactician, the artist, the man of action, achieves success to the measure of his natural ability ; and it is because he utterly ignores this rule and seeks to establish an ideal condition, instead of seeking to profit to the uttermost by the condition which exists, that the mere theorist, the scientist, the man of learning, meets with failure in practice.

The reason why the strategist infinitely is superior both to the theorist, the man who cannot apply his system, and to the tactician, the man who has no system other than to hit every head he sees, simply is because the strategist avails himself both of the system of the theorist and of the tactician's rule.

That is to say, by means of his understanding of theory, the strategist readily detects the flaws created in the adverse position by his opponent's violations of those laws which govern the art of chessplay. These

flaws the tactician usually fails to observe, and in consequence he most frequently gives a false direction to his lines of mobilization, of development, and of manœuvre.

Having given the proper direction to the lines of movement along which his pieces are to deploy, the strategist now avails himself of the tactician's rule *in order to extract all possible advantage from the situation which exists.*

The conclusion thus deduced is truly laughable. The tactician, bedazzled like a child by the elegance and magnificence of the details of the Art, is too lazy to devote the time and the application necessary to comprehend that Science upon which his beloved art is founded; while the theorist, with his soul enraptured by the beatific visions of the idealist, refuses to recognize the truth of the mathematician's axiom: "Things that are equal to the same thing—ARE EQUAL TO EACH OTHER!"

Hence, in the last analysis of this question, it is obvious that the strategist—the man who combines great knowledge with great skill in its application—beats the tactician on account of his inadequate knowledge, and beats the theorist on account of his inadequate skill; while in a contest between the theorist and the tactician, the latter wins, notwithstanding the vast knowledge of the former, for the reason that the tactician can apply in practice all the knowledge of which he is possessed—which the theorist cannot do.

THE INITIATIVE.

This perfect combination in a single move both of the tactician's rule and of the theorist's system produces that element which bridges the seemingly impassable abyss that is fixed between Science and Art — between Theory and Practice — between the man of learning and the man of action.

This element, for which there is no verbal equivalent in any language, is what was meant by Frederic the Great when he wrote: —

“ He who gains TIME — gains everything ! ”

It is what was meant by Napoleon when he said: —

“ Ask me for anything except — TIME ! ”

In the use of the word “ time,” there is concealed a far deeper significance than is apparent in the respective statements of these illustrious strategists, — a far more subtle meaning than is conveyed by the measurement of days and hours.

What they both meant is that element which in this theory of chess strategics is termed, for want of a better and more explicit word, — *the initiative*.

Mere time, as measured by the clock, *does not signify the initiative*, although the initiative comprehends time, *i. e.*, days, hours, minutes, and seconds, inasmuch, and in the same way, as the whole comprehends all its parts.

Again, whether in campaigning, and on the field of battle, as well as on the chessboard, it is possible for a force to be in motion and *not to be possessed of the*

initiative, and it is possible for a force to be at rest and yet at the same time *to have the initiative*.

That is to say, while the initiative expresses motion and is expressed by motion, it does not necessarily imply motion, and, as a matter of fact, a force may have the initiative and yet be in a state of absolute rest.

Thus, as the student readily perceives, the fact that a body of chessmen situated on the chessboard, or a body of troops in the field, have the move, or are in motion, is merely an incident among other incidents. True, this incident may be of greater or less advantage, or it may even be positively detrimental, but in no case does the fact of itself constitute the initiative, although in every case it is contained in and is a part of the initiative.

The word "time," as used by Napoleon and Frederic the Great, and the term "the initiative," as used in this theory, signify that in a given situation a given force occupies such a position relative to the opposing force, that either with or without the move,—*i. e.*, the state of being or of not being in motion,—*it dictates the next step taken by the opponent*; compels him to do what of choice he would not do, and what according to the laws of strategetics he ought not to do; and as the result of which, his position after he has availed himself of his subsequent opportunity to move, is weaker than it was before.

Again, a given force may be possessed of the strategetic offensive, and yet not have the initiative. This is the scientific fact which is the salvation of the defending player. Did the strategetic offensive carry with it the initiative, a force once compelled to adopt the strategetic defensive would be without resource.

But it so happens that a force on the strategetic defensive may, by a single inferior move of the opponent,

acquire the initiative ; then by proper use of this inestimable element, it may, as the logical sequence, wrest the strategetic offensive from the opponent.

This peculiarly subtle and inestimable element — the initiative — is the Promethean spark of strategetics, whether the latter relate to chessplay or to warfare ; by its proper use all things are accomplished on the battlefield and on the chessboard ; without it — *nothing*.

It is because that a profound, although unconscious, appreciation of this element pervades the tactician's rule, that success and honors, often in measure most astonishing, even to the recipient himself, is the constant reward of the man of action, and whether in warfare or in chessplay ; and it is because this vital element in the practice of warfare and of chessplay has no place in the science either of war or of chess that the theorist, the man of learning, is comparatively but a child at the directing either of a chessic army or of troops in the field.

The secret of the irresistible power of the initiative, when properly availed of, is that by its means a force, numerically not more than an equal, and possibly even the inferior force, is raised to the superior force at the given time and in the given situation.

This outcome results from the fact *that the one player's move is dictated by his enemy*, and the ultimate effect of such dictation must be fatal, inasmuch as it temporarily makes a player commander-in-chief, not only of his own army, but also of the hostile army which he seeks to destroy.

Hence, it is obvious that, in the last analysis of the term, what is meant by the initiative is something entirely distinct from chessic art and science, although it indissolubly is connected with the highest interpretation of each.

In short, the initiative is a condition — in fact, it is the only condition — in which the perfect application of strategic knowledge to warfare and to chessplay by means of the processes of their respective arts, is possible. In other words, it is the bridge which unites the principles and formulas of strategetic science with the processes of the strategetic art.

That condition which properly is termed the initiative exists whenever the opponent's immediate move is dictated by inexorable requirements appertaining to the given situation, over which he has no control, and when he is compelled to submit to such dictation and to move in accordance therewith.

In every situation the initiative is governed by the following:—

SEVENTEENTH LAW OF THE ART OF CHESSPLAY.

At every turn to play dictate the opponent's reply, either:

Strategically, i. e., by occupying a topographical key, and threatening on the next move to occupy another topographical key; or,

Tactically, i. e., by occupying, or by threatening on the next move to occupy, an inadequately defended tactical key.

GRAND LAW OF THE ART OF CHESSPLAY.

The complete adaptation of military art and science to the chessboard is contained in the following supreme law, — that law which since the dawn of history has governed the processes utilized by the greater captains on every battlefield and in every campaign, whether of war or of chess.

GRAND LAW OF THE ART OF CHESSPLAY.

SECTION I.

At every turn to play, exactly reconnoitre the given situation to determine the dominant Prime Strategetic Factor and whether it is contained in the kindred or in the adverse position.

Having located the dominant Prime Strategetic Factor in the kindred position, specify the resultant adverse strategetic weaknesses and describe the True Strategetic Horizon.

Having described the True Strategetic Horizon, designate the Corps Offensive, the Corps Defensive, and the Corps Detached ; mark out the True Evolution and depict the True Tactical Sequence.

The True Tactical Sequence having been depicted, locate the adverse Points of Impenetrability situated on the Kindred Logistic Radii and the adverse Points of Resistance to the occupation of the Points Offensive by the Kindred Corps Offensive.

Then having decided on the Plan of Campaign, and having selected the proper Prime Logistic Operation, and having determined the Order of Battle, and having the right to move :—

Combine the initiative with the occupation of that point by a Corps Detached, which occupation will either out-front, outflank, command, surprise, surround, or outnumber an adverse Corps Defensive, which in the given strategetic horizon is either a point of impenetrability or the origin of a point of resistance.

All the adverse points of resistance and of impenetrability on a given logistic radius having been nullified by the Kindred Corps Detached, then :—

Combine the initiative with the occupation of the points of command and of the strategic key by the Corps Offensive according to the tactical sequence governing the order of battle adopted.

SECTION II.

Whenever the dominant Prime Strategetic Factor is found to be contained in the adverse position, then :—

Combine the initiative with the occupation of that point by a Kindred Corps Defensive which will reduce the adverse dominant Prime Strategetic Factor to a Subordinate Prime Strategetic Factor.

Having reduced the adverse dominant Prime Strategetic Factor to a subordinate Prime Strategetic Factor, then :

Combine the initiative with the occupation of that point by a Kindred Corps Defensive which will reduce the adverse Prime Strategetic Factor next dominant to a subordinate Prime Strategetic Factor, and so continue until the adverse Prime Strategetic Factors are so reduced that all are dominated by a Kindred Prime Strategetic Factor ; whereupon proceed according to Section I.

APPENDIX.

THE BATTLE OF WATERLOO.

HISTORICALLY AND TECHNICALLY ILLUSTRATED ON THE CHESSBOARD.

This world-renowned encounter took place in Belgium on the afternoon and evening of June 18, 1815.

The French army, 68,000 men, directed by Napoleon in person and when engaged in destroying 70,000 British under the command of the Duke of Wellington, was attacked both in flank and rear, and utterly routed by 65,000 Germans led by Field-Marshal von Blücher.

TOPOGRAPHY OF THE BATTLEFIELD.

White.

- K Kt 1. Hamlet of Mont St. Jean.
- K R 2. Stone château of Hougoumont.
- K Kt 2.)
- K B 2.) Plateau of Mont St. Jean.
- K 2.)
- K B 4. Park of Hougoumont.
- K 3. Farmhouse of La Haye Sainte.
- Q 4. Hamlet of Papelotte.
- Q 5. Hamlet of Smolhain.
- Q B 4. Hamlet of La Haie.
- Q Kt 4. Hamlet of Frischermont.
- Q R 3. Chapel of St. Lambert.
- K B file. Charleroi road.
- K R file. Nivelles road.
- SECOND HORIZONTAL. Wavre road.

Black.

K Kt 1. Farmhouse of La Belle Alliance.

K R 2.

K Kt 2. } Heights of La Belle Alliance.
K B 2. }
K 2. }

Q B 2. Hamlet of Planchenoit.

Q R 4. Hamlet of Pajeau.

SEVENTH HORIZONTAL. Gembloux road.

COMPOSITION OF THE CONTENDING ARMIES.

THE ALLIES (*White*).

ENGLISH.

Commanded by the Duke of Wellington.

K. Duke of Wellington, Maitland's Foot Guards, Brunswick and Nassau contingent.

First Corps — Prince of Orange.

K R. Two divisions English regular infantry under Gen. Alten.

K Kt. Coldstream Guards — Gen. Perponcher's light horse, Gens. Chasse's and Colbert's cavalry.

Q Kt. Dutch-Belgie contingent under Gen. Bylandt and Gen. Steadman's infantry division.

Second Corps — Lord Hill.

Anglo-Hanoverian Auxiliaries.

K P. Gen. Ponsonby's dragoons.

Q P. Gen. Picton's cavalry division.

K B P. Gen. Coleville's infantry division.

K Kt P. Gen. Clinton's " "

K R P. Gen. Lambert's " "

English regular cavalry — Lord Uxbridge.

K B. Gen. Vandeleur's light horse.

Q B. Gen. Vivian's hussars.

GERMANS.

Commanded by Field-Marshal Prince von Blücher.

- | | | |
|---------|---|----------------------------------|
| Q. | } | Fourth Army Corps — Gen. Bülow. |
| Q R. | | |
| Q R P. | | |
| Q Kt P. | | |
| 2d Q. | } | First Army Corps — Gen. Ziethen. |
| Q B P. | | |
| 3d Q. | } | Second Army Corps — Gen. Pirch. |
| Q Kt P. | | |

FRENCH ARMY (*Black*).

- K. The Emperor Napoleon I. and staff.
- K Kt. Cuirassiers of the Imperial Guard — Gen. Kellerman.
- Q Kt. Cuirassiers of the Imperial Guard — Gen. Milhaud.
- K R. Grenadiers of the Imperial Guard — Gen. Morand.
- K P. (a) Division infantry — Prince Jerome Bonaparte. (b) Infantry division — Gen. Donzelotte. (c) Grenadiers of the Imperial Guard — Gen. Friant.
- K B P. Artillery of the Imperial Guard.
- Q. Reserve, Field Artillery Corps.
First *Corps d'Armée* — Count D'Erlon.
- Q P. Infantry division — Gen. Durutte.
- Q Kt P. “ “ Gen. Guyot.
- Q B P. Lancers — Gen. Jaquinot.
Second *Corps d'Armée* — Count Reille.
- Q R. Two divisions infantry — Gens. Bachelu and Girard.
- K Kt P. Infantry division — Gen. Foy.
- K R P. Light cavalry — Gen. Pire.

Sixth *Corps d'Armée* — Count Lobau.

K B. (a) Part of light cavalry — Gen. D'Homond.

(b) The Young Guard — Gen. Duhesme.

Q B. Two divisions infantry — Gens. Simmer and Jeannin.

Q R P. Infantry division — Gen. Teste.

TECHNICAL AND DESCRIPTIVE.

RUY LOPEZ OPENING.

THE FRENCH (*Black*).

THE ALLIES (*White*).

1. P — K 4.

(11 A.M.) Prince Jerome, younger brother of the Emperor, opens the battle of Waterloo by attacking the Park of Hougomont.

1. P — K 4.

Ponsonby's English dragoons covering La Haye Sainte.

2. Kt — K B 3.

Milhaud's cuirassiers taking position in support of the coming assault against the English centre.

2. Q Kt — B 3.

Bylandt's Dutch and Belgians advancing in support of La Haye Sainte.

3. K B — Kt 5.

French light cavalry moving against the English left wing.

3. P — Q R 3

(12.30 P.M.) Advance guard of the German Fourth Army Corps occupying St. Lambert.

4. B — R 4.

Gen. D'Homond taking post at Pajeau on the lookout for the expected French right wing under Marshal Grouchy.

4. Kt — K B 3.

English regular troops moving to the support of Hougoumont.

5. P — Q B 3.

Jaquinot's lancers advancing to the attack of La Haye Sainte.

5. P — Q Kt 4.

Bülow's vanguard driving back French light cavalry.

6. B — B 2.

The Sixth French *Corps d'Armée* under Count Lobau masses about Planchenoit to cover the French rear and right wing against Bülow.

6. K B — B 4.

Vandeleur's cavalry opening up communication with Bülow, and covering English left wing.

7. Castles.

Napoleon and the Imperial Guard taking position on the heights of La Belle Alliance.

7. Castles.

The Duke of Wellington and his reserves taking position at Mont St. Jean.

8. P — Q 4.

(1 P.M.) Marshal Ney leads D'Erlon's corps to the attack of the English left and centre.

8. P × P.

Overthrow of Durutte's division by Ponsonby's dragoons.

9. P × P.

Ponsonby's dragoons destroyed by Jaquinot's lancers.
D'Erlon carries Souhain by the bayonet.

9. B — K 2.

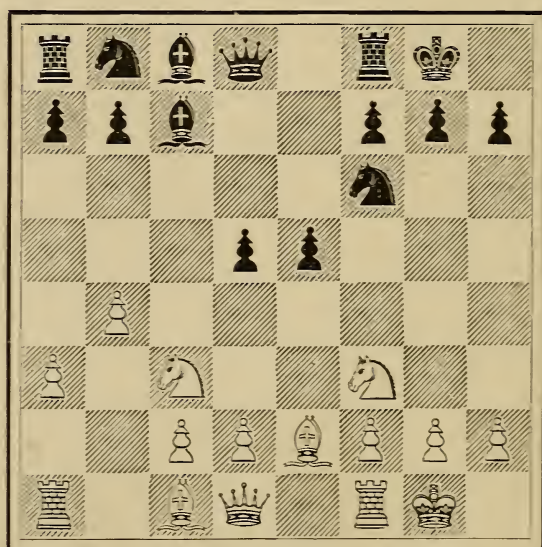
Vandeleur's cavalry falling back on Mont St. Jean
before D'Erlon.

(a) This movement in defence of the right wing
seems forced; for if 9. B — Kt 3, P — K 5; 10. Kt —
K sq, B × R P (ck); 11. K × B, Kt — Kt 5 (ck);
12. K — Kt sq, Q — K R 5; and Black wins.

POSITION AFTER WHITE'S NINTH MOVE.

(About 2 P.M.)

THE FRENCH.



THE ALLIES.

Capture of Souhain by D'Erlon's Corps.

10. P — Q 5.

D'Erlon storms the town of Papelotte.

10. Kt — Q R 4.

Bylandt's Dutch and Belgians retiring before D'Erlon.

11. P — K 5.

D'Erlon's corps advancing to the attack of La Haye Sainte.

11. Kt — K 1.

English outposts retiring to the main lines of defence.

12. Kt — Q B 3.

Milhaud's cuirassiers taking position on the French right.

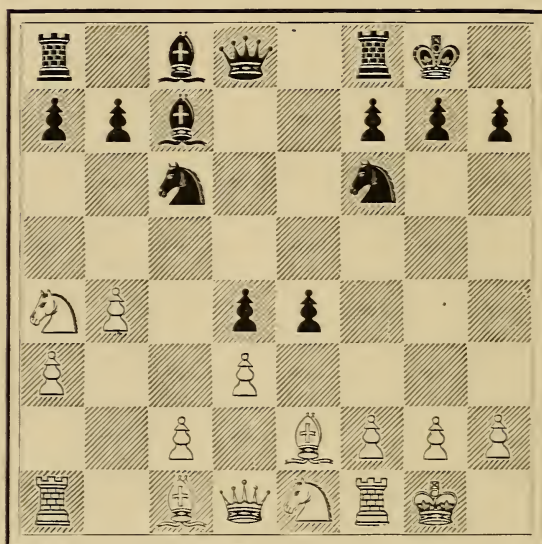
12. P — Q 3.

Picton's English cavalry supporting La Haye Sainte.

POSITION AFTER WHITE'S TWELFTH MOVE.

About (3 P.M.)

THE FRENCH.



THE ALLIES.

Capture of Papelotte by D'Erlon's Corps.

13. Q — Q 3.

The French reserve artillery brought *en masse* into action against the English right and centre.

13. P — K B 4.

Gen. Coleville's division holding the Park of Hougoumont.

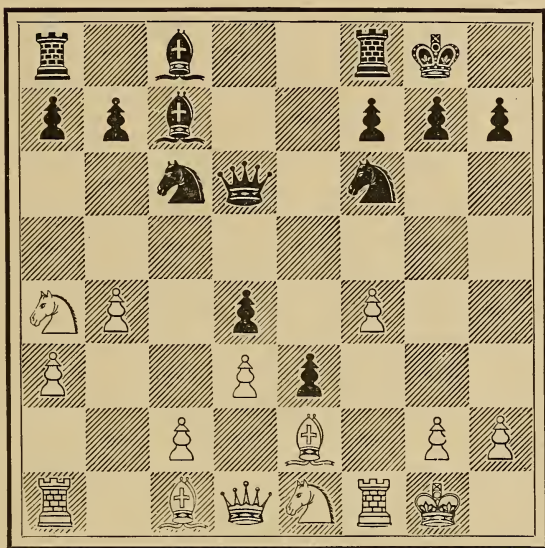
14. P — K 6.

Gen. Donzelotte's division of D'Erlon's corps carries La Haye Sainte.

POSITION AFTER BLACK'S FOURTEENTH MOVE.

(About 3.30 P.M.)

THE FRENCH.



THE ALLIES.

Capture of La Haye Sainte by D'Erlon's Corps.

14. P — Q B 3.

Vanguard of the First German Army Corps under Gen. Ziethen engaging part of D'Erlon's corps near Papelotte.

15. P — K Kt 4.

Gen. Foy's division of Reille's corps attacking the Park of Hougoumont.

15. P × Q P.

Part of D'Erlon's corps overthrown near Papelotte by Ziethen.

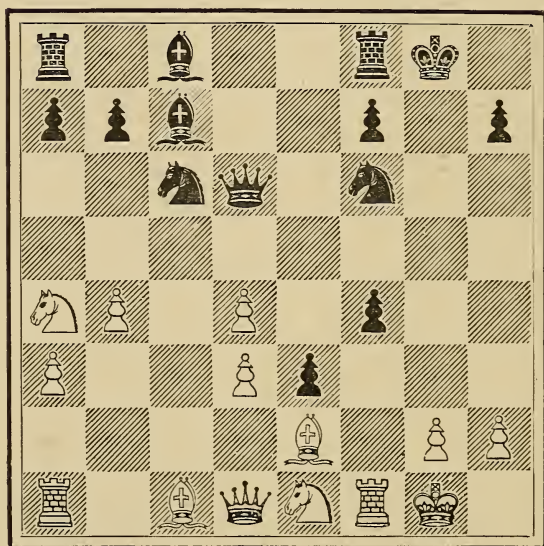
16. P × P.

Foy drives the English from the Park of Hougoumont.

POSITION AFTER WHITE'S SIXTEENTH MOVE.

(About 4 P.M.)

THE FRENCH.



THE ALLIES.

Capture of the Park of Hougoumont by Reille's Corps.

16. Kt — K B 3.

Coldstream Guards and other English regulars defending Hougoumont.

17. Q B — B 4.

Lobau moving on the centre to the support of D'Erlon.

17. B — Q Kt 2.

English cavalry supporting Ziethen.

18. Q R — Q B 1.

Reille's remaining divisions moving into action against Hougoumont.

18. Kt — Q B 5.

Bylandt's Dutch and Belgians attacking the French right.

19. P — Q Kt 3

Gen. Guyot's division attacking Bylandt.

19. R — Q B 1.

Bülow's main body advancing to the attack of Planchenoit.

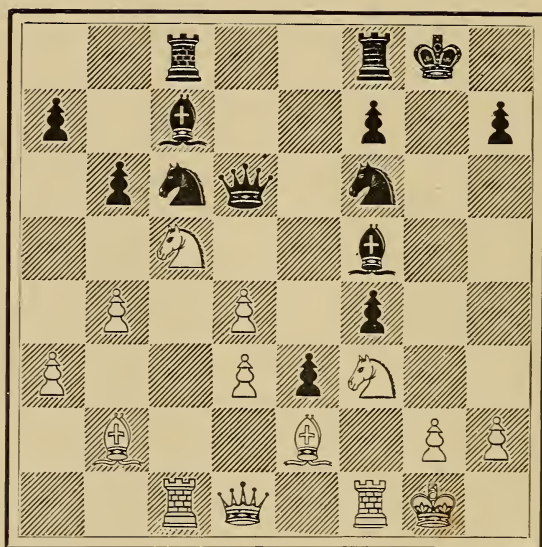
The doubled and isolated Queen's Pawns render White's game lost by its nature.

This sacrifice of the Q Kt for the purpose of restoring the integrity of his Pawn position seemingly is White's only resource.

POSITION AFTER WHITE'S NINETEENTH MOVE.

(About 4.30 P.M.)

THE FRENCH.



THE ALLIES.

D'Erlon destroys the Dutch and Belgian Contingent.

20. P × Kt.

Guyot destroys the Dutch and Belgian troops under Bylandt.

20. P × P.

Ziethen repulses Guyot's division and attacks the French artillery.

21. Q — K 2.

The French artillery falls back before Ziethen.

21. P — Q 4.

English and Germans covering the advance of Bülow against Planchenoit.

22. Q R — Q 1.

Reille's reserves moving to the attack of Hougomont.

22. Q — Q R 4.

Bülow attacking the French right in force.

23. B — Q 2.

Lobau's corps again concentrated at Planchenoit to oppose Bülow.

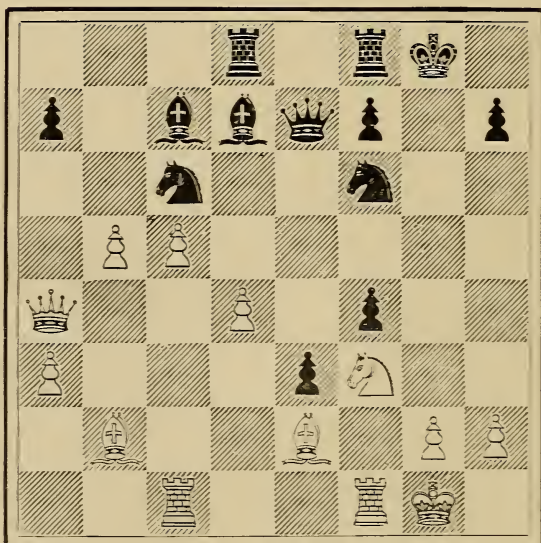
23. P — Q Kt 5.

Bülow marching on Planchenoit.

POSITION AFTER WHITE'S TWENTY-THIRD MOVE.

(About 5 P. M.)

THE FRENCH.



THE ALLIES.

Bülow assaulting Planchenoit.

24. Kt — Q R 4.

Milhaud covering the French right wing against Bülow.

24. K R — Q 1.

English regulars supporting Ziethen on the centre.

25. B — Q B 1.

Lobau covering the rear of the French army against Bülow.

25. B — Q B 3.

English cavalry co-operating with Bülow against Milhaud.

26. Kt — Kt 2.

Milhaud manœuvring in support of Lobau's corps and covering the rear of the French army against Bülow.

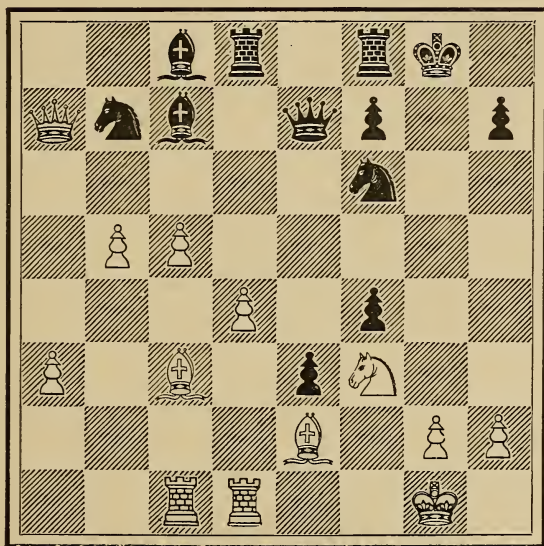
26. Q × R P.

Bülow overthrows Gen. Teste's infantry division and turns the right flank of the French army.

POSITION AFTER WHITE'S TWENTY-SIXTH MOVE.

(About 5.15 P. M.)

THE FRENCH.



THE ALLIES.

Bülow turns the French Right Flank.

27. Kt — K 5.

Kellerman's cuirassiers charging the English on Mont St. Jean.

27. B — Q Kt 4.

English cavalry co-operating with Bülow in the attack of Planchenoit.

28. Kt — K B 7.

Kellerman breaks the English centre and establishes the French cavalry on the crest of Mont St. Jean.

28. R — K 1.

English infantry moving to the support of Wellington's centre.

29. R — Q 4.

Reille's reserves marching to the attack of Hougomont.

29. B — Q B 4.

English cavalry covering Wellington's left wing.

30. R — K R 4.

Reille's corps massed against Hougomont.

30. P — Q Kt 6.

Bülow attacking Lobau's corps at Planchenoit in force.

31. B — Q 1.

Lobau falling back before Bülow.

31. P — Q B 6.

Bülow driving before him the entire French right wing.

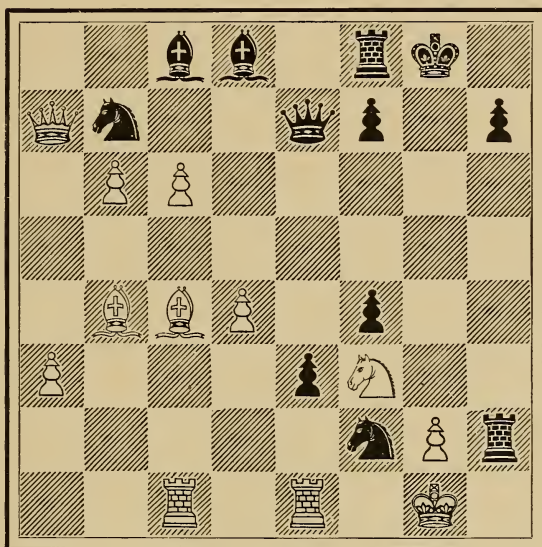
32. R $\times$ K R P.

Reille's corps attempting to take Hougoumont by storm.

POSITION AFTER BLACK'S THIRTY-SECOND MOVE.

(About 5.30 P.M.)

THE FRENCH.



THE ALLIES

Reille's Corps destroyed at Hougoumont.

32. Kt $\times$ R.

Reille's divisions are practically annihilated by the defenders of the stone chateau at Hougoumont.

33. Q — K R 5.

The entire French reserve artillery advances *en masse* to the support of the French troops attacking Mont St. Jean.

33. R — Q B 2.

German troops in march for Planchenoit, temporarily supporting English left wing.

34. Q — Kt 6.

French artillery massed in front of, and enfilading the entire English position.

34. Kt — K B 3.

English regulars manœuvring for the defence of Hougoumont.

Undoubtedly the proper line of defence against the lines of attack arising from 35. Kt — R 6 (ck), 35. Q — Kt 6, 35. K — R sq, 35. B — K R 6, 35. P — K B 6, etc.

35. B — K Kt 5.

Part of Lobau's corps brought from the extreme right to aid in the attack on Mont St. Jean.

35. Kt — R 2.

English retiring before the attack of Lobau.

36. B — K R 6.

Lobau assailing Mont St. Jean.

36. B — K B 1.

English troops concentrating on Mont St. Jean for the defence of the English centre.

37. B — K B 3.

Part of Lobau's corps attacking the English left flank which is covered by Ziethen.

37. R — Q B 4.

Part of Bülow's corps supporting Ziethen.

To prevent 38. $B \times Q P$; followed by $P - K 7$ and $Kt - Kt 5$ (dis ck) and $Q \times Kt$ mate.

38. $Kt - Q 3$.

Milhaud advancing to the support of Kellerman at Mont St. Jean.

38. $Q - R 6$.

Bülow momentarily checked and thrown on the defensive.

The $Q R$ obviously is immovable and must be protected.

If 38. $B \times Kt$, $B \times Kt P$; 39. $B \times B$, $Kt - R 6$ (ck); 40. $K - R sq$, $Q \times R$ (ck); 41. Kt or B interposes, $P - K 7$; and Black wins.

39. $Kt (Q 3) - K 5$.

Milhaud unites with Kellerman at Mont St. Jean.

39. $R - K 2$.

English infantry manœuvring to support Wellington's centre.

To prevent 40. $B \times Kt P$; 41. $B \times B$, $Kt - R 6$ (ck); 42. $K - R sq$, $Kt (K 5) - B 7$; mate.

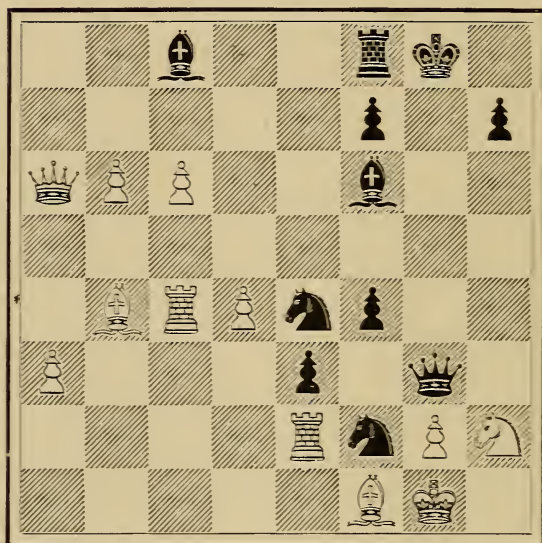
40. $B - Q B 1$.

Part of Lobau's corps is withdrawn from the attack of Mont St. Jean and returned to Planchenoit to oppose the further advance of Bülow.

POSITION AFTER BLACK'S FORTIETH MOVE.

(About 6 P. M.)

THE FRENCH.



THE ALLIES.

Grand assault against Mont St. Jean.

40. Q × B.

Bülow destroys nearly half of Lobau's corps at Planchenoit.

This is White's only move to prevent the immediate loss of the game, viz. : —

- | | |
|--------------------|---------------------|
| If 40. P — Kt 7. | 40. Kt — R 6 (ck). |
| 41. K — R 1. | 41. Q — K B 7. A. |
| 42. Kt — K B 3. B. | 42. Kt — Kt 6 (ck). |

- | | |
|---------------------------|------------------------|
| 43. K — R 2. | 43. Kt × B (ck). |
| 44. K — R 1. <i>C</i> . | 44. Kt — Kt 6 (ck). |
| 45. K — R 2. | 45. Kt × R. <i>D</i> . |
| 46. B — K 1. <i>E</i> . | 46. Q — Kt 6 (ck). |
| 47. Kt — R 1. <i>F</i> . | 47. Kt — B 7 (ck). |
| 48. B × Kt. | 48. P × B. |
| 49. R — Q B 1. <i>G</i> . | 49. B — K R 6. |
| 50. P × B. | 50. Q × P (ck). |
| 51. Kt — R 2. | 51. Kt — R 6. |

Checkmate.

A.

If 41. Kt (K 5) — B 7 (ck); 42. R × Kt, and White escapes with a draw.

B.

The only move to avert mate by either 42. Q — Kt 8 (ck); or by 42. Kt — Kt 6 (ck). If R × Q, obviously Black mates on the move.

C.

Seemingly White is now without resource.

D.

The correct line of attack which apparently leads to a direct mate against the best play.

E.

If 46. P × B queening, Q — Kt 6 (ck); 47. K — R sq, Kt — B 7; mate.

F.

White cannot play 47. B × Q, on account of P × B (ck); 48. K — R sq, Kt — B 7; mate.

G.

To prevent 51. P — B 8 queening (ck); etc.

If 49. Kt — R 2, Q — K R 5; and mates next move by either 50. P — B 8 queening (ck); or 50. Kt — Kt 6 (ck), etc.

41. R × Q.

Bülow driven from Planchenoit by the Imperial Guard under Gen. Morand.

41. P — Q Kt 7.

Bülow's remaining divisions again assailing Planchenoit.

42. R — K 1.

The Imperial Guard advancing from the extreme right to attack Mont St. Jean.

If 42. Kt — R 6 (ck); 43. K — R sq, Q — B 7; 44. P × R queening (ck), K — Kt 2; 45. Q × Kt, Kt — Kt 6 (ck); 46. Q × Kt, Q × Q; 47. B — B 7, and White wins.

42. Kt — K B 3.

English troops manœuvring for the defence of Wellington's centre.

43. B — K R 5.

Remains of Lobau's corps brought from the centre to the attack of Mont St. Jean.

43. B — K 1.

English troops concentrating for the defence of Mont St. Jean.

To prevent 44. Kt — R 6 (ck); 45. K — R sq, Q — B 7; 46. R × Q, Kt × R (ck); 47. K — R 2, B — Kt 6; mate.

44. K — Kt 2.

Napoleon abandons the Charleroi road and takes the Nivelles road for his line of communication with France.

This move with its attendant combinations seems Black's only resource in this crisis.

44. P — B 7.

Bülow captures Planchenoit and establishes his corps on the right flank and rear of the position originally occupied by the French army.

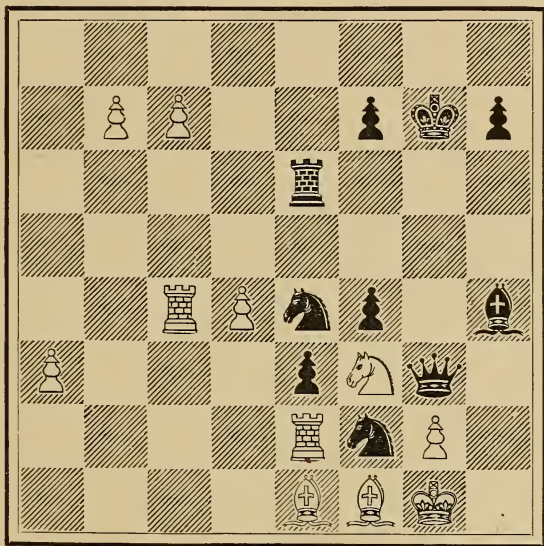
45. R — K 3.

The Imperial Guard takes post in front of La Haye Sainte.

POSITION AFTER BLACK'S FORTY-FIFTH MOVE.

(About 7 P.M.)

THE FRENCH.



THE ALLIES.

The French Army changes Front.

Grand change of front by the French army, to oppose Wellington on the left and Bülow on the right.

45. P — Q B 8 (queening).

Arrival of the main body of Ziethen's corps.

46. R — K R 3.

The Imperial Guard marching to the attack of Mont St. Jean.

46. P — Q Kt 8 (queening).

Arrival of Pirch's corps, led by Field-Marshal Prince von Blücher.

The queening of these pawns is White's only resource.

The one paralyzes Black's attack against the adverse king by preventing Kt — R 6 (ck); and the other provides the winning counter-stroke.

47. B — Q 1.

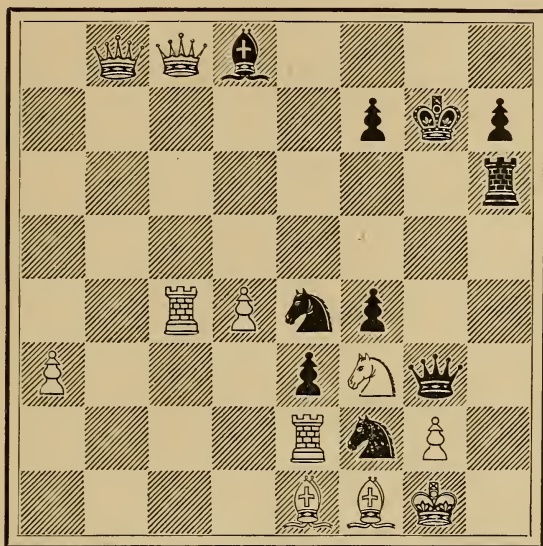
The Young Guard covering the right wing of the French army against the entire German army.

Obviating temporarily White's menace of 47. Q — K R 8, mate and disclosing a threatened mate by 48. R — K R 8 (ck).

POSITION AFTER BLACK'S FORTY-SEVENTH MOVE.

(About 7.30 P.M.)

THE FRENCH.



THE ALLIES.

The arrival of Blücher.

47. Q — K 5 (ck).

Blücher attacking in force all along the French front
 “to let the English army breathe.”

This check with the succeeding sacrifice of the Q is
 the only method by which the checkmate of the White
 King can be averted.

48. B — K B 3.

The Young Guard covering the rear of the French
 army against Blücher.

48. $Q \times B$ (ck).

Destruction of the Young Guard by Blücher.

49. $R \times Q$.

Pirch's Corps repulsed by the Imperial Guard under Gen. Morand.

The only move; if $Kt \times Q$ White wins by $B \times Kt$.

49. $B - Q$ Kt 4.

English cavalry co-operating with Blücher in the attack of La Belle Alliance.

50. $P - K$ R 3.

Napoleon preparing a line of retreat for the French army by the Nivelles road.

To prevent 50. $Q - K$ B 8 (ck), $K - Kt$ 3; 51. $Q - K$ Kt 8 (ck), K moves; 52. $Q \times Q$, and wins.

50. $R - Q$ B 7.

Bülow's divisions co-operating with Blücher in the attack of La Belle Alliance.

Threatening to win by 51. $Q - K$ B 8 (ck), $K - R$ 2; 52 $R \times K$ B P (ck), etc.

51. $K - K$ R 2.

The French army taking its final stand.

Securing temporary safety as the White Queen cannot abandon the control of White's K R 3 square on account of Black's menace of $Kt - R$ 6 (ck); etc.

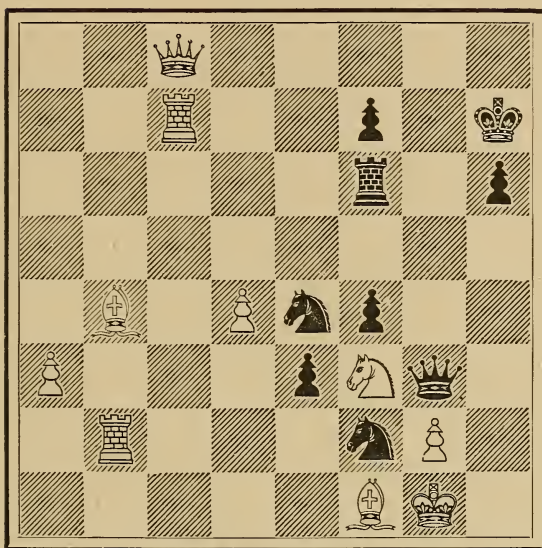
51. $R - Q$ Kt 2.

English infantry preparing to co-operate with Blücher.

POSITION AFTER WHITE'S FIFTY-FIRST MOVE.

(About 8.30 P.M.)

THE FRENCH.



THE ALLIES.

Napoleon's Last Line of Battle.

52. Kt — K Kt 5.

Kellerman begins the last assault on Mont St. Jean — the final military movement of Napoleon's *Grande Armée*.

52. B — K 1.

English troops concentrating to defend Wellington's centre.

To prevent 53. Q — B 7 (ck); 54. R × Q, P × R (ck); 55. K — R sq, Kt — Kt 6; mate.

53. Kt (K 5) — B 7.

Milhaud supporting Kellerman's manœuvre.

53. B — Q 3 (ck).

"Up, Guards, and at them!" To prevent the draw by perpetual check; allow the King to retrograde to the Queen's wing and to strengthen and co-operate with the attack against the Black King.

54. K — Kt 2.

Disorganization manifest among the French at La Belle Alliance.

54. R — Q Kt 8.

English co-operating with Blücher against the French right.

A crushing and decisive manœuvre which forces the game through sheer weight of material.

55. Kt — R 6 (ck).

Milhaud's last charge.

55. K — B 1.

English rallying by the left. If 55. K — R 1, Black wins.

56. P — K 7 (ck).

Gen. Friant's column of the Imperial Guard on the crest of Mont St. Jean.

56. K × P.

Destruction of the Imperial Guard under Gen. Friant. If 57. B × P, Kt — K 6, mate.

57. Q × P (ck).

French artillery, almost devoid of infantry support, still keeping up the battle.

57. K — Q 1.

Wellington forming a second line of battle.

58. Q $\times$ Kt (ck).

Last effort of the French to restore the battle.

58. K — B 1.

English rallying by the left.

59. Q — K 6.

French artillery taking post to cover the flight of the surviving French.

59. B — Q 2.

English cavalry charging the French artillery.

60. Q — Kt 8 (ck).

French artillery retreating toward Nivelles road.

60. K — Kt 2.

Wellington completes his second line of battle.

61. R — Q Kt 3 (ck).

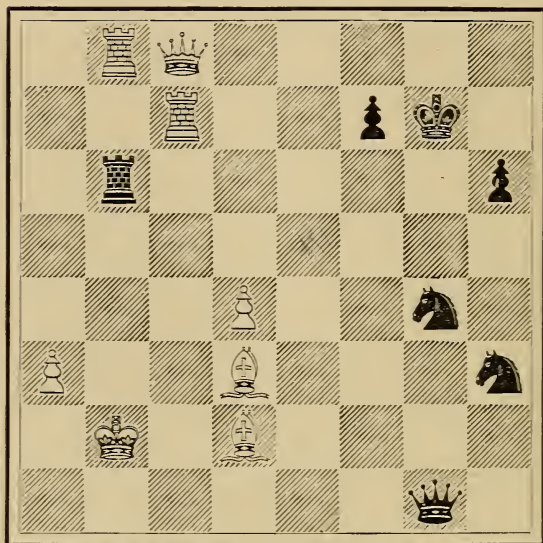
Imperial Guard under Morand opposing the junction of Blücher's and Wellington's forces.

The only resource to avert immediate mate by 62. Q — K R 8, etc.

POSITION AFTER BLACK'S SIXTY-FIRST MOVE.

(About 9 P.M.)

THE FRENCH.



THE ALLIES.

Destruction of the Old Guard.

61. R × R.

Morand's Infantry of the Imperial Guard destroyed near Planchenoit.

62. Kt — K 4.

Kellerman's cuirassiers covering the centre of the French army. To prevent 63. R — K Kt 6 (ck), followed by 64. Q — K Kt 8, mate.

62. $R \times B P$ (ck).

Bülow storms La Belle Alliance and captures the artillery of the Imperial Guard.

63. $Kt \times R$.

Kellerman checks Bülow and covers the French right against Blücher.

If 63. $K \times R$, White mates in two moves by $Q - K 6$ (ck), etc.

63. $R - K Kt 6$ (ck).

English regulars charging on La Belle Alliance.

64. $Q \times R$.

Temporary repulse of the English infantry by the French artillery of the line.

64. $B \times Q$.

Capture of the entire French artillery by the English cavalry.

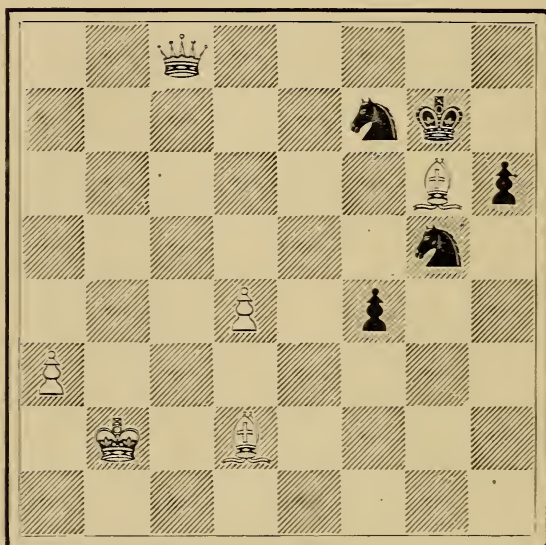
65. $Kt (R 6) - Kt 4$.

Milhaud unites with Kellerman at La Belle Alliance to cover the flight of the surviving French.

POSITION AFTER BLACK'S SIXTY-FIFTH MOVE.

(About 9.30 P.M.)

THE FRENCH.



THE ALLIES

*Milhaud's and Kellerman's Cuirassiers covering
the Flight of the French.*

31

A D 7.5.





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